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FINANCIAL

# Tech

GrafTech is a global leader in graphite and carbon-based products and services, a position built on over 100 years of experience in the research and development of these materials. From 13 manufacturing facilities in 7 countries, we sell to about 60 countries. We believe we have built the best, low cost, global production platform in our industry to serve our customers around the world. We believe we possess a number of advantaged technologies and are working to exploit and commercialize their potential to generate revenue growth. These include technologies which uniquely position us in the emerging fuel cell and electronic thermal management markets. We are focused on strengthening and enhancing our industry-leading position by aggressively managing our assets to maximize cash flow and profitability.



GrafTech International is organized in 3 distinct lines of business. Each line of business groups together those product lines that share common raw materials, production facilities, and customers. This aligns our production capabilities and resources with market opportunities, increases productivity and streamlines the Company's structure.

> END MARKET USE:  
steel  
non-ferrous

> END MARKET USE:  
aluminum

> END MARKET USE:  
semiconductor  
transportation  
power storage  
aerospace



> END MARKET USE:  
electronics  
transportation  
fluid sealing  
fire protection  
fuel cell power generation



> END MARKET USE:  
silicon  
phosphorous  
ferro-alloys  
iron



## SYNTHETIC GRAPHITE LINE OF BUSINESS

### ■ GRAPHITE ELECTRODES

Graphite electrodes are key components in the conductive power systems used in the production of steel in electric arc furnaces, the long-term growth sector of the steel industry. Electrodes act as conductors of electricity in a furnace, generating sufficient heat to melt scrap metal and other raw materials. There is currently no commercially viable substitute for graphite electrodes in electric arc furnaces. Graphite electrodes are also used to refine steel in ladle furnaces and in other smelting processes.

### ■ CATHODES

Graphite and carbon cathodes are key components in the conductive power systems used in aluminum smelting furnaces. We have used our expertise in graphite technology and high temperature industrial applications together with the technology of our strategic partner, Alcan, the world's leading provider of aluminum smelting technology, to develop significant improvements in graphite cathodes. Graphite cathodes are the preferred technology for new smelting furnaces in the aluminum industry because they allow for substantial improvements in process efficiency.

### ■ ADVANCED GRAPHITE MATERIALS

Advanced graphite materials are highly engineered synthetic graphite products. The product line includes a wide range of molded, isomolded, and extruded products used in the semiconductor, transportation, aerospace, and other industries.

## NATURAL GRAPHITE LINE OF BUSINESS—ADVANCED ENERGY TECHNOLOGY INC.

### ■ ELECTRONIC THERMAL MANAGEMENT PRODUCTS

### ■ FUEL CELL MATERIALS & COMPONENTS

### ■ GASKET AND SEALING PRODUCTS

The natural graphite line of business develops highly engineered products for high growth markets. Our products include eGRAF® electronic thermal management products designed to aid in the cooling of chip sets and other heat generating components in computers, cell phones, and other electronic devices. Also, as part of our strategic alliance with Ballard Power Systems, we have an exclusive development and collaboration agreement and an exclusive supply agreement to commercialize GRAFCELL® natural graphite-based materials and components for PEM fuel cells for power generation. Our natural graphite products also include flexible graphite, which is an excellent gasket and sealing material that to date has been used primarily in high temperature and corrosive environments in the automotive, chemical and petrochemical markets.

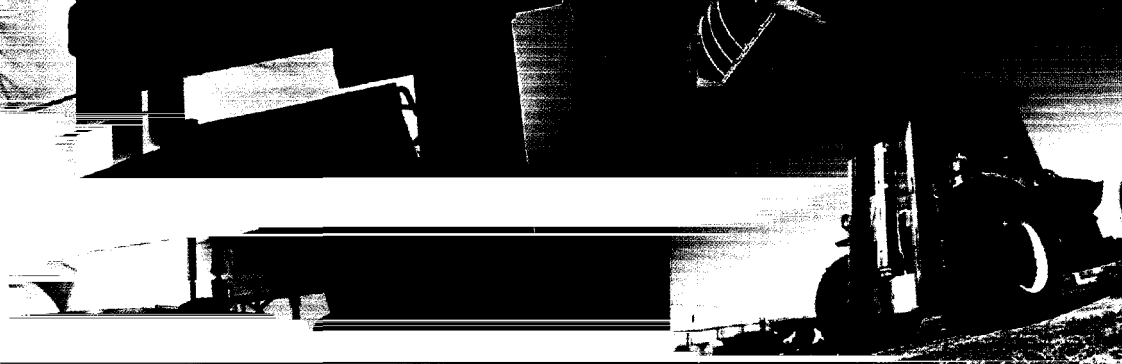
## CARBON LINE OF BUSINESS

### ■ CARBON ELECTRODES

### ■ REFRACTORIES

Carbon electrodes are key components in the conductive power systems necessary to produce ferro-nickel, thermal phosphorous, and silicon metal for the production of aluminum. Carbon electrodes are used and consumed in a manner similar to that of graphite electrodes although at lower temperatures and with different consumption rates.

Refractories refers to a variety of carbon, graphite, and semi-graphite block and brick products which protect the walls of blast furnaces, submerged arc furnaces, and cupolas against thermal, mechanical, and chemical attack. We are the only manufacturer of hot-pressed carbon and semi-graphite brick and we make the largest carbon refractory block in the world, up to 180 inches in length and weighing approximately 7,500 pounds.



Craig S. Shular  
Chief Executive Officer and President

# Growing Our

## To Our Shareholders:

### 2003—IN REVIEW

We set out five major objectives for 2003—return to profitability, reduce debt, sell non-strategic assets, commercialize advantaged technologies and achieve cost savings targets. Our team successfully delivered on each one of these objectives.

### RETURN TO PROFITABILITY

GrafTech increased its total revenues by approximately 20% to \$712 million in 2003. Profitability improved significantly to net income of \$16 million<sup>(1)</sup> before non-recurring items in 2003 as compared to a net loss of \$14 million<sup>(2)</sup> before non-recurring items in 2002. Net loss as reported was \$24 million in 2003 as compared to a loss of \$18 million in 2002.

The improvements were driven by higher graphite electrode sales volume and prices and cost savings initiatives. With supply demand conditions tight in our graphite electrode business in 2003, average selling prices increased by 12 percent. We also expanded capacity at our world class, low cost plant in Mexico, which facilitated increasing our graphite electrode sales volume by 11 percent to 200,500 metric tons versus 2002. As a result of the increased sales volume, we increased our market share in the global graphite electrode market to about 21 percent from 19 percent in 2002.

### DEBT REDUCTION AND ASSET SALES

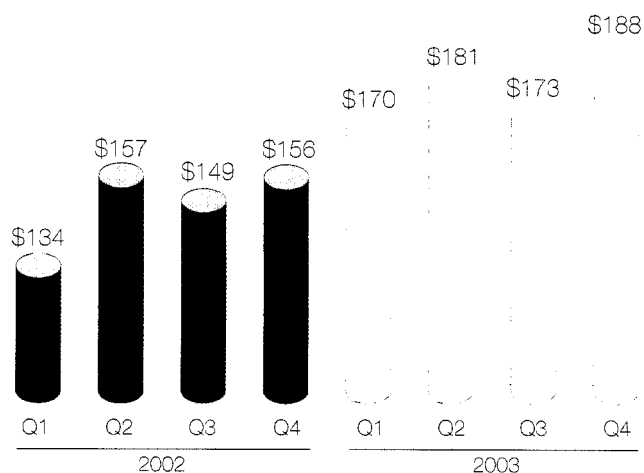
In the fourth quarter, we executed a successful equity issue, raising net proceeds of \$190 million, which were utilized to pay down debt. We also executed other debt reduction actions during the year, which included \$24 million of non-strategic asset sales and the exchange of equity for \$55 million of our 10.25% senior notes. As a result of these actions, we strengthened our financial position and ended 2003 with net debt of \$483 million<sup>(3)</sup> (total debt of \$503 million), the lowest in our history as a public company.

### COMMERCIALIZE ADVANTAGED TECHNOLOGIES

We made progress in our efforts to commercialize our advantaged technologies. Our electronic thermal management (ETM) sales revenues grew as a result of obtaining orders from industry leaders such as Sony, Samsung,

### QUARTERLY REVENUE

DOLLARS IN MILLIONS







# Competitive Advantages

Hitachi, IBM, and Intel. ETM revenues were \$2 million in 2003, as compared to \$500 thousand in 2002. We were successful in penetrating diverse applications such as laptop computers, cell phones, digital cameras and flat screen plasma televisions.

One of our ETM products received R&D Magazine's prestigious R&D 100 Award in 2003. Each year, this award recognizes the top 100 most technologically significant products and advancements in the world, across all industries, that exhibit a step change in performance in the markets they serve.

In addition, we obtained \$1.4 million in cash grants from the State of Ohio to support the commercialization of GrafTech's fuel cell technologies. We will use the grants primarily to develop high volume manufacturing processes for flow field plates utilizing our proprietary GRAFCELL® advanced natural graphite. In 2003, our sales to the fuel cell industry were approximately \$1.5 million.

## COST SAVINGS PROGRAM

Under our cost savings program, we achieved \$19 million of cost savings in 2003, despite increasing energy and raw material costs over the course of the year. We met this goal, in part, by taking several actions to position our Company for long-term competitiveness and profitability. Among other actions, we:

- Completed the expansion of our Monterrey, Mexico graphite electrode manufacturing capacity from 40,000 metric tons to 60,000 metric tons. This is the largest graphite electrode facility in the world and provides us with a low cost facility to meet the large demand in NAFTA.

## 2003 Objectives

Return to Profitability

Debt Reduction

Commercialize Electronic Thermal Management Products

\$16 million Cost Savings Goal

Sell Non-Strategic Assets

## Achievement

✓ Increased net income<sup>(1,2)</sup> before non-recurring items by \$30 million

✓ Net debt reduced from \$706 million<sup>(4)</sup> in 2002 to \$483 million<sup>(3)</sup> in 2003

✓ Sales increased from \$500 thousand to \$2 million, forecasted to grow to \$8 million in 2004

✓ \$19 million achieved

✓ \$24 million sold

- Completed several productivity improvement programs in our global production facilities, which allow us to reduce cycle time, lower scrap rates and increase volume.
- Initiated and completed voluntary and selective severance programs in the U.S., which reduced our salaried workforce by 27 percent.
- Froze the U.S. and other non-U.S. defined benefit pension plans and replaced these plans with efficient defined contribution plans.
- In the U.S., redesigned our healthcare benefit plans for both active employees and retirees.

## World-Wide Operations

We have production facilities on four continents and sell to about 60 countries.

● Headquarters  
● Manufacturing  
● Sales Office

# Industry-Leading

On the cost savings front, we maintain a relentless commitment to continuous productivity improvements and plan to deliver approximately \$60 million of cumulative recurring annual pretax cost savings by the end of 2004. Key components of our cost savings initiatives for 2004 include variable cost reductions, plant productivity programs, and interest, tax and overhead reductions.

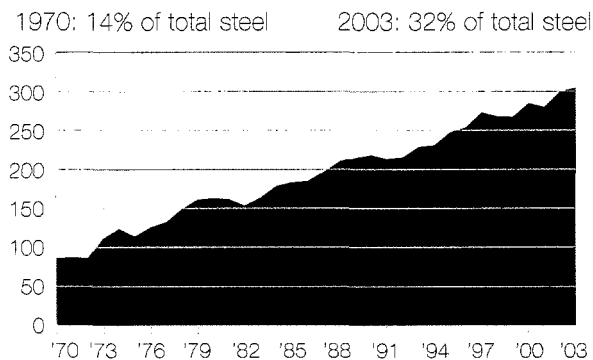
### SYNTHETIC GRAPHITE BUSINESS

Our strategy for the synthetic graphite business is to continue to grow the sustainable competitive advantages we have built as the world's largest manufacturer of graphite electrodes and cathodes.

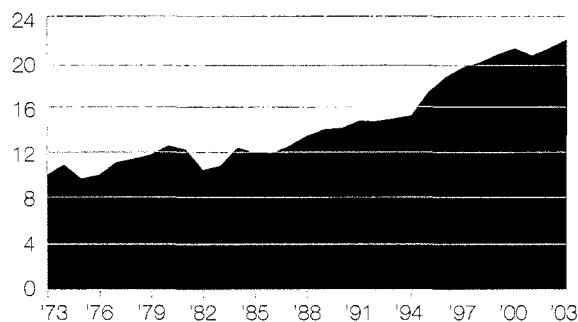
Graphite electrodes and cathodes, which constituted about 80 percent of total Company sales in 2003, are products essential to the production of electric arc furnace

steel and aluminum. In 2003, we had the largest global market share for these products. We have built a uniquely positioned global manufacturing network, which we believe cannot be replicated. We believe that our network has the largest manufacturing capacity, has one of the lowest manufacturing cost structures of all our major competitors and delivers the highest level quality products. Over the last few years, we have repositioned our production platform. We shut down four of our higher cost graphite electrode manufacturing facilities and redeployed capacity to our six remaining, lower cost facilities. The repositioning of our network allows us to deliver the same graphite electrode sales volume that we delivered over the past few years with a lower fixed cost base. During 2003, with the completed expansion of our production capacity in Mexico and ongoing productivity programs, we successfully increased our graphite electrode

**EAF STEEL PRODUCTION**  
MILLIONS OF METRIC TONS



**ALUMINUM PRODUCTION**  
MILLIONS OF METRIC TONS



**2003 VERSUS 2002: NET SALES ↑ 20%. .NET INCOME<sup>(1,2)</sup> ↑ \$30 MILLI**  
(before non-recurring items)

Salvador, Brazil	
São Paulo, Brazil	Columbia, Tennessee, USA
Beijing, China	Lawrenceburg, Tennessee, USA
Hong Kong, China	
Orléans, France	
Noire Dame, France	Parma, Ohio, USA
Salerno, Italy	Vénissieux, France
Monterrey, Mexico	
Moscow, Russia	
Wazma, Russia	
Meyerton, South Africa	
Pamplona, Spain	
Olten, Switzerland	
Sheffield, England, UK	
Clarksburg, West Virginia, USA	
Clarksville, Tennessee, USA	



# Position

production capability from 190,000 metric tons to more than 220,000 metric tons.

We believe that our unique global manufacturing network provides us with significant advantages in costs, proximity to customers, timely and reliable delivery and operational flexibility. This also allows us to best satisfy the requirements of our large growing customers created by the continuing consolidation trend in the steel and aluminum industries.

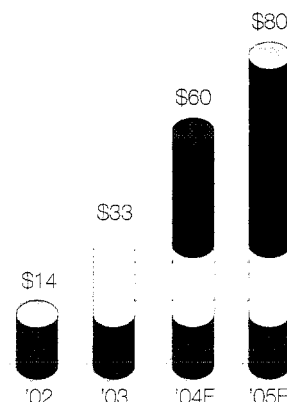
In 2003, each of our six graphite electrode plants set production records while at the same time achieving record safety performance.

Our products and services are among the highest quality available in the industry. We believe that improvements in overall quality create significant efficiencies for us, provide us the opportunity to increase sales and market share, and deliver production efficiencies for our customers.

## ADVANTAGED TECHNOLOGIES

Based on over 100 years of experience, we believe that we are the industry leader in graphite and carbon materials science and high temperature processing know-how and that we operate the premier research, development and testing facilities in our industry. Our capability and technology in this area has enabled us to develop new products to exploit fast growing markets like electronic thermal management and fuel cells.

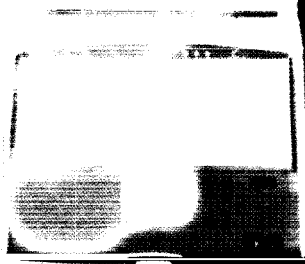
## ANNUAL CUMULATIVE COST SAVINGS PROGRAM



Our intellectual property portfolio is extensive, with over 310 U.S. and foreign patents and 280 U.S. and foreign pending patent applications, which we believe is more than any of our major competitors. Among our competitors, we hold the largest number of patents for natural graphite as well as the largest number of patents relating to the use of natural graphite for PEM fuel cell applications. Over one third of our patents were granted during the past four years.

GRAFTECH INTERNATIONAL LTD.

**GRAPHITE ELECTRODE VOLUME ↑ 11% . . GRAPHITE ELECTRODE PRICES ↑ 12%**



Our eGRAF® thermal management products are designed to manage the increasing thermal needs of today's electronics market. As electronic devices continue to decrease in size, heat dissipation becomes a more critical variable in electronic performance. As demonstrated in the diagrams, GTI's eGRAF® thermal management product has significantly reduced the temperature of the laptop, which increases overall performance and improves product lifespan.



**eGraf® Thermal Technology**

**Without eGraf®**

# Commercializing Ac

## **ELECTRONIC THERMAL MANAGEMENT PRODUCTS— THERMAL INTERFACE, SPREADERS AND HEAT SINKS**

Our eGRAF® natural graphite products provide value-added solutions to the heat dissipation challenges of the electronics industry. Overall, electronic devices continue to increase in power, generating more heat, which must be managed in increasingly smaller applications. Our eGRAF® products compete primarily with copper and aluminum products. eGRAF® products match the thermal performance of copper, which is currently the most frequently used solution for demanding applications, but weigh about 80 percent less than copper and are significantly lower in cost. Relative to aluminum, our products are cost competitive, have significantly better thermal performance and are about 30 percent lighter.

### **ELECTRONIC THERMAL MANAGEMENT**

Our strategy is to work with electronics industry leaders to develop customized thermal management solutions for their most demanding applications. Electronics manufacturers are currently experiencing constraints in the development of more advanced devices because of the limitations of current thermal management products and technologies to dissipate the higher levels of heat generated. We have developed and are continuing to develop and introduce highly engineered advanced natural graphite products that satisfy this need. We expect that the superior ability of our products to manage heat will allow our customers to redesign electronic devices to reduce cost, size and weight while improving performance.

We increased ETM revenues to over \$2 million in 2003 versus \$500 thousand in 2002. More importantly, we expect the ETM business to grow to \$8 million in 2004 as our commercialization efforts continue.

We believe that the global thermal management component market for computers, servers, televisions, cell phones, and other communications, industrial, military, office and automotive equipment is an estimated \$1.8 billion today. We are targeting the most demanding applications where we can provide to our customers value-added solutions that exceed the performance of existing heat dissipation products. Our target market is approximately \$300 million today and growing at an estimated 20 percent per year, offering us significant opportunity for growth.

### **FUEL CELLS**

Fuel cells continue to be an important part of our long-term growth strategy. We are the leading manufacturer of natural graphite products for proton exchange membrane (PEM) fuel cells and fuel cell systems. We manufacture GRAFCELL® flow field plates and gas diffusion layers for transportation, stationary and portable fuel cell applications.

- Intel® approved eGRAF® thermal interface for use in applications for several processors, including the Pentium®4 processor
- Commercialized products for use in Sony Vaio and IBM notebook computers produced in Japan, Samsung's plasma display televisions and IBM's new high-end Regatta Unix Servers
- Received prestigious R&D 100 Award for ETM product
- Published white paper with IBM on advanced graphite-based heat sink technology.



R&D 100 AWARD

FOR eGRAF® HEAT SINKS

This prestigious award recognized one of our eGRAF® thermal management products, which is used to dissipate heat in electronics applications.

# Advantaged Technologies



We continue to work with our strategic partner, Ballard Power Systems, the world leader in PEM fuel cells, under our exclusive development and collaboration agreement that continues through 2011 and our exclusive product supply agreement that continues through 2016. Three of Ballard's customers, DaimlerChrysler, Ford and Honda, have begun to introduce worldwide fleet demonstrations of 150 fuel cell vehicles, powered by Ballard® fuel cells which use our GRAFCELL® products. These 150 vehicles

represent about 85 percent of the fuel cell vehicles expected to be operational worldwide by the end of 2004.

## LOOKING AHEAD

In 2004, we expect significant earnings and cash flow improvement over 2003 levels. We have executed graphite electrode price increases for 2004 and expect sales volume growth of about 5 percent over 2003. We believe that improved profitability and cash flow will also be achieved as we progress towards our goal of \$80 million in cumulative recurring annual pretax cost savings by the end of 2005. We expect to face pressure from higher raw material and energy costs this year; however, we will direct our cost savings efforts to work towards mitigating these impacts.

We are excited about our growth opportunities in electronic thermal management and look forward to reporting further progress throughout the year as we continue to grow our business with industry leaders.

In January, we took advantage of the convertible bond market and further strengthened our financial position by executing a \$225 million convertible debenture issue with a 1.625% coupon.

At GrafTech, our global culture is unified by a commitment to operational excellence that is responsive to the ever-changing challenges and needs of our customers. We have worked very hard to build our position as the #1 global, low cost producer in our major businesses. Our industry-leading position and our embedded philosophies of superior quality, service and reliability are the foundation for future growth. We are committed to enhancing shareholder value



by building upon this advantaged position and managing our businesses to deliver maximum long-term cash flow growth.

In conclusion, we would like to thank our employees and their families for their contributions and sacrifices that made 2003 a success. Their commitment enabled us to meet our annual goals and establish a solid foundation for GrafTech's future growth.

On behalf of the Board of Directors and our management team, we would like to thank our stakeholders for their support during the past year.

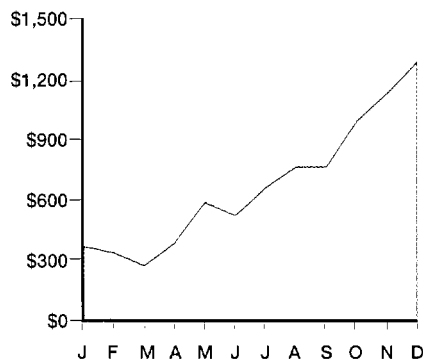
Sincerely,

*C. S. Shular*

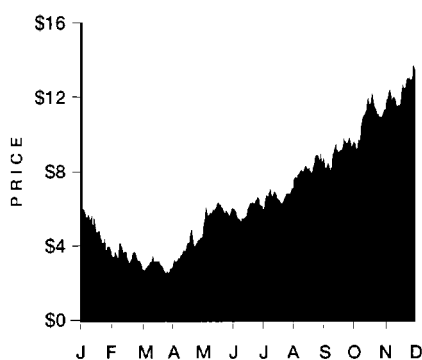
Craig S. Shular  
Chief Executive Officer and President  
March 15, 2004

- (1) Calculated beginning with the 2003 net loss, as reported in accordance with U.S. Generally Accepted Accounting Principles (GAAP), of \$24 million, plus \$19 million (\$27 million before tax) of restructuring and impairment charges and \$29 million (\$32 million before tax) of charges for antitrust investigations and related lawsuits and claims, less \$7 million (\$12 million before tax) of other (income) expense, net, and \$1 million gain on discontinued operations.
- (2) Calculated beginning with the 2002 net loss, as reported in accordance with GAAP, of \$18 million, plus \$16 million (\$23 million before tax) of restructuring and impairment charges, less \$6 million of special tax benefit associated with GrafTech's legal and tax restructuring and \$6 million (\$9 million before tax) of other (income) expense, net.
- (3) Calculated beginning with December 31, 2003 total debt as reported in accordance with GAAP of \$502 million of long-term debt and \$1 million of short-term debt, plus \$18 million fair value of hedged debt obligation, less \$4 million of unamortized bond premium and \$34 million of cash and cash equivalents.
- (4) Calculated beginning with December 31, 2002 total debt as reported in accordance with GAAP of \$713 million of long term debt and \$18 million of short term debt, less \$8 million fair value of hedged debt obligation, \$6 million of unamortized bond premium and \$11 million of cash and cash equivalents.

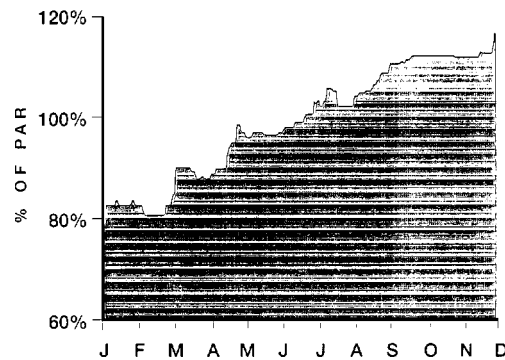
#### 2003 MARKET CAPITALIZATION IN MILLIONS



#### 2003 GTI STOCK PERFORMANCE



#### 2003 BOND PERFORMANCE



## Corporate and Investor Information

<b>BOARD OF DIRECTORS</b>	<b>CORPORATE HEADQUARTERS</b>	<b>DIVIDEND POLICY</b>
Gilbert E. Playford <i>Chairman of the Board</i>	Graftech International Ltd. 1521 Concord Pike, Suite 301 Brandywine West Building Wilmington, DE 19803	It is the current policy of our Board of Directors to retain earnings to finance plans and operations and repay debt and legal obligations.
R. Eugene Cartledge <i>Nominating &amp; Governance Committee (Chairman); Organization, Compensation &amp; Pension Committee</i>	E-MAIL ADDRESS Investor.Relations@graftech.com	There are no plans to declare or pay dividends at this time, and payment of dividends is restricted under our principal credit facilities and our senior note indenture.
Mary B. Cranston <i>Nominating &amp; Governance Committee; Organization, Compensation &amp; Pension Committee</i>	TELEPHONE (302) 778-8227	<b>ANNUAL MEETING</b> The Annual Meeting of Stockholders will be held on May 26, 2004, at 10:00 a.m. at the Sheraton Suites in Wilmington, Delaware.
John R. Hall <i>Organization, Compensation &amp; Pension Committee (Chairman)</i>	WEB SITE www.graftech.com	<b>STOCK EXCHANGE LISTING</b> Our common stock is listed on the NYSE under the symbol GTI.
Harold E. Layman <i>Audit &amp; Finance Committee</i>	<b>STOCKHOLDER PROFILE</b> At February 27, 2004, there were 93,735,669 shares of common stock outstanding, 109 stockholders of record and approximately 8,300 beneficial owners.	<b>STOCKHOLDER CONTACT AND FORM 10-K</b> Stockholders and prospective investors are welcome to call or write us with questions or requests for additional information. Copies of our Form 10-K filed with the SEC for 2003 accompany this annual report and are incorporated by reference herein. Inquiries should be directed to Investor Relations at our corporate headquarters.
Ferrell P. McClean <i>Audit &amp; Finance Committee</i>	<b>COMMON STOCK PRICE</b> The closing price of our common stock was \$13.50 on December 31, 2003, the last trading day of our last fiscal year. The quarterly high and low closing prices of our common stock were as follows:	<b>TRANSFER AGENT</b> Computershare Investor Services LLC (312) 588-4282
Michael C. Nahl <i>Audit &amp; Finance Committee (Chairman); Nominating &amp; Governance Committee</i>	2002	
	High	Low
	First Quarter	\$14.30 \$ 9.80
	Second Quarter	\$14.05 \$11.00
	Third Quarter	\$11.85 \$ 7.05
	Fourth Quarter	\$ 7.60 \$ 3.82
	2003	
	High	Low
	First Quarter	\$ 5.89 \$ 2.57
	Second Quarter	\$ 6.30 \$ 2.39
	Third Quarter	\$ 8.94 \$ 5.50
	Fourth Quarter	\$13.82 \$ 8.23
	<b>INDEPENDENT AUDITORS</b> Deloitte. Philadelphia, PA	<b>RISKS AND UNCERTAINTIES</b> This annual report contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. The cautionary disclosure relating to forward-looking statements, the risk factors and the preliminary notes contained in the Form 10-K which accompanies this annual report also apply to and are incorporated in this annual report.

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

FOR ANNUAL AND TRANSITION REPORTS  
PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

(Mark One)

- ☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the fiscal year ended December 31, 2003  
OR  
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the transition period from to

Commission file number: 1-13888

**GRAFTech**

GRAFTECH INTERNATIONAL LTD.  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

06-1385548  
(I.R.S. Employer  
Identification Number)

1521 Concord Pike  
Brandywine West, Suite 301  
Wilmington, Delaware  
(Address of principal executive offices)

19803  
(Zip Code)

Registrant's telephone number, including area code: (302) 778-8227

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common stock, par value \$.01 per share	New York Stock Exchange
Preferred Share Purchase Rights	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2). Yes ☒ No ☐

The aggregate market value of our outstanding common stock held by non-affiliates, computed by reference to the closing price of our common stock on June 30, 2003, was approximately \$332 million. On February 27, 2004, 93,735,669 shares of our common stock were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The information required under Part III is incorporated by reference from the Graftech International Ltd. Proxy Statement for the Annual Meeting of Stockholders to be held on May 26, 2004, which will be filed on or about April 14, 2004.



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## PART I

### Preliminary Notes

**Important Terms.** We use the following terms to identify various matters. These terms help to simplify the presentation of information in this Report.

**“AET”** refers to Advanced Energy Technology Inc. only. AET is our 97.5% owned subsidiary engaged in the development, manufacture and sale of natural graphite products. Prior to January 1, 2003, AET was named Graftech Inc.

**“Carbone Savoie”** refers to Carbone Savoie S.A.S. and its subsidiaries. Carbone Savoie is our 70% owned subsidiary engaged in the development, manufacture and sale of cathodes.

**“Common stock”** means GTI common stock, par value \$.01 per share.

**“Debt Securities”** means our 10.25% senior notes due 2012 (the **“Senior Notes”**) and our 1 5/8% convertible senior debentures due 2024 (the **“Debentures”**). The Senior Notes were issued under an Indenture dated February 15, 2002 (as supplemented, the **“Senior Note Indenture”**). The Debentures were issued under an Indenture dated January 22, 2004 (the **“Debenture Indenture”**).

**“GrafTech Finance”** refers to GrafTech Finance Inc. only. GrafTech Finance is a direct wholly owned, special purpose finance subsidiary of GTI and the borrower under our principal senior secured bank credit facilities (as amended, the **“Senior Facilities”**), which includes our principal revolving credit facility (the **“Revolving Facility”**). GrafTech Finance is the issuer of the Senior Notes and a guarantor of the Debentures. Prior to June 7, 2002, GrafTech Finance was named UCAR Finance Inc.

**“GrafTech Global”** refers to GrafTech Global Enterprises Inc. only. GrafTech Global is a direct wholly owned subsidiary of GTI and the direct or indirect holding company for all of our operating subsidiaries. GrafTech Global is a guarantor of the Senior Notes, the Debentures and the Senior Facilities. Prior to June 7, 2002, GrafTech Global Enterprises Inc. was named UCAR Global Enterprises Inc.

**“GTI”** refers to GrafTech International Ltd. only. GTI is our public parent company and the issuer of the Debentures and our publicly traded common stock and the related preferred share purchase rights registered under the Exchange Act and listed on the NYSE. GTI is a guarantor of the Senior Notes and the Senior Facilities. Prior to our Annual Meeting of Stockholders for 2002, GTI was named UCAR International Inc.

**“Subsidiaries”** refers to those companies that, at the relevant time, are or were majority owned or wholly owned directly or indirectly by GTI or its predecessors to the extent that those predecessors' activities related to the graphite and carbon business. All of GTI's subsidiaries have been wholly owned (with de minimis exceptions in the case of certain

foreign subsidiaries) from at least January 1, 2000 through December 31, 2003, except for:

- Carbone Savoie, which has been and is 70% owned; and
- AET, which was 100% owned until it became 97.5% owned in June 2001.

Our 100% owned Brazilian cathode manufacturing operations were contributed to Carbone Savoie and, as a result, became 70% owned on March 31, 2001.

**“UCAR Carbon”** refers to UCAR Carbon Company Inc. only. UCAR Carbon is our wholly owned subsidiary through which we conduct most of our U.S. operations. UCAR Carbon is a guarantor of the Senior Notes, the Debentures and the Senior Facilities.

**“We,” “us” or “our”** refers to GTI and its subsidiaries collectively or, if the context so requires, GTI, GrafTech Global or GrafTech Finance, individually.

***Presentation of Financial, Market and Legal Data.*** We present our financial information on a consolidated basis. This means that we consolidate financial information for all subsidiaries where our ownership is greater than 50%. As a result, the financial information for Carbone Savoie and AET is consolidated on each line of the Consolidated Financial Statements and the equity of the other owners in those subsidiaries is reflected on the lines entitled “minority stockholders’ equity in consolidated entities” and “minority stockholders’ share of income.” We use the equity method to account for 50% or less owned interests, including our 25% owned joint venture in China with Jilin Carbon Co. Ltd. (together with its affiliates, **“Jilin”**).

All financial information at and for periods ended on or before December 31, 2002 has been restated to reflect changes in accounting for reportable segments (as required by Statement of Financial Accounting Standards (“**SFAS**”) No. 131 to reflect changes in the organization of our businesses effective January 2003), accounting for discontinued operations (as required by SFAS No. 144 to reflect the sale of our non-strategic composite tooling business in June 2003) and reclassification of extraordinary items and corresponding adjustments to provisions for income taxes (as required by SFAS No. 145, which we adopted effective January 2003). All financial information at and for periods ended on subsequent dates was originally and is currently being reported on the same basis as the restated financial information. The restatement does not change previously reported consolidated net income, basic or diluted earnings per share, consolidated total assets or liabilities, or consolidated cash flows from operating activities, investment activities or financial activities.

References to cost in the context of our low cost advantages and strategies do not include the impact of special or non-recurring charges, expenses or credits, such as those related to investigations, lawsuits, claims, restructurings or impairments, or the impact of changes in accounting principles.

The legal and tax restructuring and global realignment mentioned in this Report are part of the corporate realignment of our subsidiaries. The tax benefits from the realignment have been recorded separately from expenses to implement the realignment (which are included in other (income) expense, net, on the Consolidated Statements of Operations).

Unless otherwise noted, when we refer to dollars, we mean U.S. dollars.

All cost savings and reductions relating to our 1998 enhanced global restructuring and rationalization plan are estimates based on a comparison, with respect to provision for income taxes, to costs in 1998 or, for all other costs, to costs in the 1998 fourth quarter (annualized). Calculation of cost savings under the 1998 plan includes the effects of changes in currency exchange rates and production levels. All cost savings and reductions relating to our 2002 major cost savings plan are estimates or targets based on a comparison to costs in 2001. For purposes of calculating the cost savings related to the 2002 plan, savings relating to graphite electrode production cost per metric ton are determined based on annual graphite electrode production volume of about 180,000 metric tons and certain other savings are determined based on annual overhead costs (which includes research and development expense, but excludes variable compensation expense) of \$90 million, annual interest expense of \$60 million and an effective income tax rate of 45% (before taking into account the corporate realignment of our subsidiaries). These amounts approximate actual amounts in 2001. Calculation of cost savings under the 2002 plan excludes the effects of the changes in currency exchange rates between the euro and the dollar, but includes the effects of changes in currency exchange rates between other currencies and includes the effects of changes in production levels.

References to spot prices for graphite electrodes mean prices under individual purchase orders (not part of an annual or other extended purchase arrangement) for near term delivery for use in large steel melting electric arc furnaces (as distinct from, for example, a ladle furnace or a furnace producing non-ferrous metals).

Neither any statement made in this Report nor any charge taken by us relating to any legal proceedings constitutes an admission as to any wrongdoing.

Unless otherwise specifically noted, market and market share data in this Report are our own estimates. Market data relating to the steel, aluminum, electronics, semiconductor, transportation, petrochemical and other metals industries, our general expectations concerning such industries and our market position and market share within such industries, both domestically and internationally, are derived from trade publications relating to those industries and other industry sources as well as assumptions made by us, based on such data and our knowledge of such industries. Market data relating to the fuel cell power generation industry, our general expectations concerning such industry and our market position and market share within such industry, both domestically and internationally, are derived from publications by securities analysts relating to Ballard Power Systems Inc., other industry sources and public filings, press releases and other public documents of Ballard Power Systems as well as assumptions made by us, based on such data and our knowledge of the industry. Market and market share data relating to the graphite and carbon industry as well as cost information relating to our competitors, our general expectations concerning such industry and our market position and market share within such industry, both domestically and internationally, are derived from the sources described above and public filings, press releases and other public documents of our competitors as well as assumptions made by us, based on such data and our knowledge of such industry. Our estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under "Forward Looking Statements and Risks" in this Report. We cannot guarantee the accuracy or completeness of this market and market share data

and have not independently verified it. None of the sources mentioned above has consented to the disclosure or use of data in this Report.

Unless otherwise noted, references to “**market shares**” are based on sales volumes in 2003, to “**major product lines**” mean graphite electrodes, cathodes and natural graphite products, and to “**natural graphite products**” does not include mined natural graphite flake.

Unless otherwise noted, references to “**capacity utilization rates**” for the graphite electrode industry refer to actual or effective annual manufacturing capacity as opposed to theoretical or rated annual manufacturing capacity and references to capacity utilization rates in excess of 95% mean maximum or virtually maximum operating levels or utilization rates. In determining capacity utilization rates, we have used an average of available capacity during the course of the relevant year.

The GRAFTECH logo, GRAFCELL®, eGRAF®, GRAFOIL®, GRAFGUARD®, GRAFSHIELD® and SpreaderShield™ are our trademarks and trade names. This Report also contains trademarks and trade names belonging to other parties.

We make available, free of charge, on or through our web site, copies of our proxy statements, our annual reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file them with, or furnish them to, the SEC. We maintain a web site at <http://www.graftech.com>. The information contained on our web site is not part of this Report.



## **Item 1. Business**

### **Introduction**

We are one of the world's largest manufacturers and providers of high quality synthetic and natural graphite and carbon products and related technical and research and development services. We manufacture graphite electrodes and cathodes, products essential to the production of electric arc furnace steel and aluminum. We also manufacture thermal management, fuel cell and other specialty graphite and carbon products for, and provide services to, the electronics, power generation, semiconductor, transportation, petrochemical and other metals markets. We have 13 state-of-the-art manufacturing facilities strategically located on four continents, in more diverse locations than the facilities of any of our competitors. We have customers in about 60 countries, including industry leaders such as Arcelor, Nucor and Bao Steel in steel, Alcoa, Pechiney and Alcan in aluminum, Cisco, IBM and Intel in electronics, MEMC Electronic Materials in semiconductors and Ballard Power Systems in fuel cells.

We have the largest share of the worldwide market for electrodes and cathodes. We have a uniquely positioned global manufacturing network, which we believe cannot be replicated by any of our competitors due to the capital investment, technology and process know-how required to do so. We believe that our network has the largest manufacturing capacity, has one of the lowest manufacturing cost structures of all of our major competitors and delivers the highest level quality products. Over the last few years, we have rationalized our graphite electrode and cathode facilities and redeployed capacity to larger facilities in lower cost countries. This allows us to achieve significant increases in productivity and output from our existing assets, including economies of scale and other cost savings that we believe will increase as we grow our sales. We believe that our network provides us with the operational flexibility to source customer orders from the facility that optimizes our profitability and, with the continuing consolidation in the steel and aluminum industries, provides us a significant growth opportunity in serving larger multi-plant global customers.

We believe that we are the industry leader in graphite and carbon materials science and high temperature processing know-how, and that we operate the premier research, development and testing facilities in our industry. We have over 100 years of experience in the research and development of these technologies, and our intellectual property portfolio is extensive.

We believe that our technological capabilities for developing products with superior thermal, electrical and physical characteristics provide a differentiating advantage. These capabilities have enabled us to accelerate development and commercialization of our technologies to exploit markets with high growth potential for us, including products for electronic thermal management and fuel cell applications.

We have developed, over the past two years, natural graphite electronic thermal management products and secured product approvals and purchase commitments from a wide range of industry leaders, such as Cisco, IBM and Intel, based on superior thermal performance, weight, adaptability and cost characteristics as compared to alternative products. Thermal management products are designed to dissipate heat generated by electronic devices. We expect demand for our products to grow as industry trends continue toward smaller, more powerful

electronic devices that generate more heat and require more advanced thermal management solutions.

We are the leading manufacturer of natural graphite products for proton exchange membrane (“**PEM**”) fuel cells and fuel cell systems. Fuel cells provide environmentally friendly electrical power generation. We expect continued commercialization of fuel cells, encouraged by current governmental programs and driven by concerns relating to the U.S. electrical power grid, environmental protection, foreign oil dependency and other factors. We estimate that the market for our fuel cell products in 2012 will exceed \$500 million. About 85% of the 175 fuel cell vehicles that were operational worldwide in 2003 and are expected to be operational in 2004 were or will be powered by Ballard Power Systems fuel cells. Our products are essential components of those fuel cells. Ballard Power Systems, the world leader in PEM fuel cells, is our strategic partner under an exclusive product supply agreement that continues through 2016 and an exclusive collaboration agreement that continues through 2011.

**Lines of Business.** We have three lines of business: synthetic graphite; natural graphite; and advanced carbon materials. Synthetic graphite constitutes its own reportable segment, and natural graphite and advanced carbon materials together constitute our other reportable segment. See Note 4 to the Consolidated Financial Statements for certain financial information regarding our reportable segments.

**Synthetic Graphite.** Our synthetic graphite line of business manufactures and delivers high quality graphite electrodes, cathodes and advanced synthetic graphite products as well as related services. Electrodes and cathodes are key components of the conductive power systems used to produce steel, aluminum and other non-ferrous metals. Advanced synthetic graphite products include primary and specialty products for transportation, semiconductor and other markets. We believe there is currently no commercially viable substitute for graphite electrodes in electric arc furnace steel production or for cathodes in aluminum smelting.

Graphite electrodes are consumed primarily in electric arc furnace steel production, the steel making technology used by all “mini-mills,” typically at a rate of one graphite electrode every eight to ten operating hours (“a stick a shift”). Mini-mills constitute the higher long term growth sector of the steel industry.

Cathodes are used in aluminum smelting furnaces, and demand for cathodes is driven by construction of new smelters and relines and upgrades of existing smelters. We operate our cathode business through a 70% owned joint venture with Pechiney, the world’s recognized leader in aluminum smelting technology. In late 2003, Pechiney was acquired by Alcan, one of the world’s largest aluminum producers.

**Natural Graphite.** We invented natural graphite products, consisting of advanced flexible graphite and flexible graphite. Advanced flexible graphite products include highly engineered thermal interface products, heat spreaders and heat sinks for electronic device applications. We also manufacture highly engineered flow field plates, gas diffusion layers and other advanced flexible graphite products for PEM fuel cells and fuel cell systems for use in the power generation and transportation markets. Flexible graphite products include gasket and sealing material for high temperature and corrosive environments in automotive, petrochemical

and other applications. We are one of the world's largest manufacturers of natural graphite products for all of these uses and applications.

*Advanced Carbon Materials.* Our advanced carbon materials line of business includes carbon electrodes and refractories as well as related services. Carbon electrodes are used in the production of ferro-alloys and silicon metal, a raw material primarily used in the manufacture of aluminum. Refractories are used primarily as submerged arc and other furnace hearth walls and bottoms.

*Building Sustainable Competitive Advantages.* Over the past few years through late 2002, adverse global and regional economic conditions negatively impacted many of our markets. Our management team responded to these challenges and transformed our operations, building sustainable competitive advantages that enable us to compete successfully in our major product lines regardless of changes in economic conditions, to realize enhanced performance as economic conditions improve and to exploit growth opportunities from our intellectual property portfolio. During this period, we successfully implemented the following initiatives:

*Repositioned Global Manufacturing Network.* We repositioned our global manufacturing network by, among other things, shutting down four of our higher cost graphite electrode manufacturing facilities and redeploying capacity to our six remaining larger, lower cost, strategically located facilities. The repositioning of our network allows us to deliver the same graphite electrode sales volume that we delivered over the past few years with a significantly lower fixed cost base. With these actions and our proprietary process and technological improvements, we now have the capability, depending on product demand and mix, to manufacture more than 220,000 metric tons of graphite electrodes from our existing assets. We also shutdown cathode and advanced synthetic graphite products manufacturing capacity and redeployed it to lower cost facilities and expanded our advanced flexible graphite manufacturing capacity. Together, since 1998, these repositioning actions resulted in a headcount reduction of over 30% and contributed a majority of the achieved cost savings described in this Report.

We believe that there are significant barriers to entrants to our industry, including the need for extensive product and process know-how and other intellectual property and a high initial capital investment. There have been no entrants in the graphite electrode industry for more than 50 years.

*Redesigned Global Manufacturing, Marketing and Sales Processes.* We have evaluated virtually every aspect of our global supply chain, and we have redesigned and implemented changes to our global manufacturing, marketing and sales processes to leverage the strengths of our repositioned network. Among other things, we have eliminated manufacturing bottlenecks, improved product and service quality and delivery reliability, expanded our range of products, and improved our global sourcing and product mix for our customers. Since 1999, we have reduced annual customer compensation for graphite electrode quality claims from \$3 million to less than \$1 million. We also redirected marketing and sales activities to better service the needs of both existing and new customers. We estimate that we have increased our share of the worldwide market for graphite electrodes by more than 10%, from 19% in 2001 to about 21% in 2003.

*Accelerated Technology Development.* We analyzed our intellectual property portfolio to identify new product opportunities in markets with high growth potential for us, redirected research to enhance and exploit our portfolio and accelerated development of products for those markets. Among other things, we developed patented advanced pin technology for graphite electrodes, patented processing technology for high performance graphite cathodes, products for PEM fuel cells that are enabling fuel cell commercialization, and new electronic thermal management technologies with over 140 product approvals from industry leading strategic partners, customers and others.

In September 2003, we received *R&D Magazine's* prestigious R&D 100 Award, granted to identify the 100 most technologically significant products and advancements each year, for our achievements in electronic thermal management heat sink products.

*Achieved Cost Savings.* From 1998 through December 2001, we achieved recurring annual pretax cost savings of \$132 million. From January 2002 through December 31, 2003, we achieved additional recurring pretax cost savings of \$33 million. In addition to the rationalization of our facilities, we have, among other things, redesigned benefit plans, completed information technology outsourcing, and consolidated and streamlined administration and other activities. We believe that our cost savings programs have also enabled us to achieve one of the lowest manufacturing cost structure of all of our major competitors.

### **Business Strategies**

Our goal is to create stockholder value by maximizing cash flow from operations, and our business strategies are designed to expand upon the competitive advantages that our initiatives have created.

*Leveraging Our Unique Global Manufacturing Network.* We believe that our unique global manufacturing network provides us with significant competitive advantages in costs and product quality, proximity to customers, timely and reliable delivery and operational flexibility to adjust product mix to meet the diverse needs of a wide range of customers. We believe we can further exploit this advantaged manufacturing network by redirecting our marketing and sales efforts toward and focusing our superior technical and customer service capabilities on:

- the growing larger global customers created by the continuing consolidation trend within the steel and aluminum industries, to whom we believe we are better positioned than any of our competitors to offer products that meet their volume, product quality, product mix, delivery reliability and service needs at competitive prices; and
- customers in targeted market segments where we have competitive advantages to meet identified customer needs due to the locations of our facilities, the range and quality of our products, the utilization of our capacity, the value of our customer technical service and other factors.

Our activities have a customer driven focus, and we continually seek to identify customer needs and adjust our products and services to better service those needs. We believe that, in

many cases, the growing larger global customer created by the continuing consolidation trend within the steel and aluminum industries are more creditworthy than other customers and that we are able to better manage our exposure to trade credit risk as we increase the percentage of our total net sales sold to these customers.

We believe that our graphite electrode and cathode businesses have the leading market shares in the world and that, in 2003, our worldwide market share was:

- about 21% in graphite electrodes;
- about 25% in carbon electrodes; and
- about 14% in cathodes.

We sell these products in every major geographic market. Sales of these products outside the U.S. accounted for about 67% of net sales in 2001, 69% of net sales in 2002 and 67% of net sales in 2003. No single customer or group of affiliated customers accounted for more than 5% of our total net sales in 2001, 2002 and 2003.

We have a strategic alliance with Pechiney, the world's recognized leader in aluminum smelting technology. In late 2003, Pechiney was acquired by Alcan, one of the world's largest aluminum producers. We believe that this alliance strengthens our position as the quality leader in the low cost production of high quality graphite cathodes. We believe that our advanced graphite cathode technology is enabling us to increase our market share of graphite cathodes sold upon the commencement of operation of the new, more efficient aluminum smelting furnaces that are being built as well as in substitution for carbon cathodes in relines and upgrades of existing smelting furnaces.

We believe that we are the manufacturer best positioned to supply natural graphite products to the electronic thermal management and fuel cell markets. We are one of the world's largest manufacturers of natural graphite for these markets as well as for automotive and petrochemical applications. We believe that, in 2003, our worldwide market share for natural graphite products was about 23%. We believe that we operate the most technologically sophisticated advanced natural graphite production line in the world. We have strategic alliances with leading chip makers and others in the electronics industry and with Ballard Power Systems, the world leader in PEM fuel cell technology.

***Delivering Exceptional and Consistent Quality.*** We believe that our products are among the highest quality products available in our industry. We have been awarded preferred or certified supplier status by many major steel and aluminum companies and have received numerous technological innovation and other awards by industry groups, customers and others. Using our technological capabilities, we continually seek to improve the consistent overall quality of our products and services, including the performance characteristics of each product, the uniformity of the same product manufactured at different facilities and the expansion of the range of our products. We believe that improvements in overall quality create significant efficiencies for us, provide us the opportunity to increase sales volumes and market share, and create market opportunities for us and production efficiencies for our customers.

***Providing Superior Technical Service.*** We believe that we are the recognized industry leader in providing value added technical services to customers for our major product lines. We believe that we have the largest customer technical service and related supporting engineering and scientific organizations in our industry, with more than 245 engineers, scientists and specialists around the world. Our employees assist key steel and other metals customers in furnace design, operation and upgrade to reduce energy consumption, improve raw material costs and increase output. In addition, our employees assist customers and others who design, develop or produce electronic devices to integrate our advantaged advanced flexible graphite product solutions into their new devices.

***Accelerating Commercialization of Advantaged Technologies.*** We believe that our leading technological and manufacturing capabilities and strengths provide us with a significant growth opportunity as well as a competitive advantage. We seek to exploit these capabilities across all of our businesses, to improve existing products, such as supersize graphite electrodes used in the most demanding electric arc furnace steel production furnaces and high performance graphite cathodes that have become the preferred technology in the industry, and to develop and commercialize new products for markets with high growth potential for us. We analyzed our intellectual property portfolio to identify new product opportunities in markets with high growth potential for us, redirected research to enhance and exploit our portfolio and accelerated development of products for those markets. Among other things, we developed patented advanced pin technology for graphite electrodes, patented processing technology for high performance graphite cathodes, products for PEM fuel cells that are enabling fuel cell commercialization, and new electronic thermal management technologies with over 140 product approvals from industry leading strategic partners, customers and others.

We also believe that our strategic partners have entered into alliances with us due to, among other things, the strength of our technology and our research and development capabilities.

***Pursuing Cost Savings.*** In January 2002, we announced a major cost savings plan that we believe is one of the most aggressive cost reduction plan being implemented in our industry. We are targeting cumulative recurring annual pretax cost savings of \$60 million in 2004 and \$80 million in 2005. Savings achieved under the 2002 plan are additive to those which we achieved by the end of 2001 under our 1998 global restructuring and rationalization plan. We achieved recurring pretax cost savings of \$19 million in 2003, for total cumulative savings of \$33 million since January 2002.

As part of the 2002 plan, we are continuing to implement global business and work process rationalization and transformation initiatives, including:

- the streamlining of our organizational structure within our three major lines of business;
- the consolidation and streamlining of order fulfillment, purchasing, finance and accounting, and human resource processes;
- the identification and implementation of outsourcing opportunities;

- the improvement in performance through realignment and enterprise-wide standardization of supply chain processes and systems; and
- the improvement of interfaces and information technology infrastructures with trading partners.

These activities are targeted for completion by the end of 2005.

Under the 2002 plan, we have sold and intend to sell real estate, non-strategic businesses and certain other non-strategic assets. Through December 31, 2003, we have completed sales generating net proceeds aggregating \$24 million. We anticipate that the aggregate estimated pretax cash proceeds from these sales will total about \$50 million by the end of 2004. We believe that these cost savings and asset sales will further enhance our performance.

### **Our Lines of Business**

Carbon is one of the fundamental elements and is capable of forming an enormous variety of compounds. As a result of these characteristics, carbon is one of the most widely used elements in manufacturing processes of all kinds. Graphite is the crystalline form of carbon. Graphite can be processed to be resistant to corrosive materials, withstand high temperatures and act as either a conductor of, or an insulator from, heat and electricity. Graphite is both manmade (called "**synthetic graphite**") and occurs naturally (called "**natural graphite**"). Synthetic graphite is made primarily from petroleum coke, a by-product of petroleum refining. Natural graphite is a mined mineral that is processed to increase its purity.

### **Synthetic Graphite Line of Business**

Our synthetic graphite line of business, which had net sales of \$559 million in 2001, \$538 million in 2002 and \$639 million in 2003, manufactures and delivers high quality graphite electrodes, cathodes and advanced synthetic graphite products as well as related services. Graphite electrodes accounted for about 75% of the net sales of this line of business in 2003. Cathodes are manufactured by our subsidiary, Carbone Savoie, and accounted for about 15% of the net sales of this line of business in 2003.

We estimate that, in 2003, the worldwide market for graphite electrodes and cathodes was about \$2.6 billion. Customers for these products are located in all major geographic markets.

#### ***Graphite Electrodes.***

*Use of graphite electrodes in electric arc furnaces.* There are two primary technologies for steel making:

- basic oxygen furnace steel production (sometimes called "**integrated steel production**"); and
- electric arc furnace steel production.

Graphite electrodes are consumed primarily in electric arc furnace steel production, the steel making technology used by all "mini-mills," typically at a rate of one graphite electrode every eight to ten operating hours. Electric arc furnace steel makers are called "mini-mills" because of their historically smaller capacity as compared to basic oxygen furnace steel makers and because they historically served more localized markets. Mini-mills constitute the higher long term growth sector of the steel industry. Graphite electrodes are also consumed in the refining of steel in ladle furnaces and in other smelting processes such as production of titanium dioxide.

Electrodes act as conductors of electricity in the furnace, generating sufficient heat to melt scrap metal, iron ore or other raw materials used to produce steel or other metals. The electrodes are consumed in the course of that production.

Electric arc furnaces that produce steel typically range in size from those that produce about 25 metric tons of steel per production cycle to those that produce about 150 metric tons per production cycle. Electric arc furnaces operate using either alternating or direct electric current. The vast majority of electric arc furnaces use alternating current. Each of these furnaces typically uses nine electrodes (in three columns of three electrodes each) at one time. The other electric arc furnaces, which use direct current, typically use one column of three electrodes. The size of the electrodes varies depending on the size of the furnace, the size of the furnace's electric transformer and the planned productivity of the furnace. In a typical furnace using alternating current and operating at a typical number of production cycles per day, one of the nine electrodes is fully consumed (requiring the addition of a new electrode), on average, every eight to ten operating hours. The actual rate of consumption and addition of electrodes for a particular furnace depends primarily on the efficiency and productivity of the furnace. Therefore, demand for graphite electrodes is directly related to the amount and efficiency of electric arc furnace steel production.

Electric arc furnace steel production requires significant heat (as high as 5,000 degrees Fahrenheit, which we believe is the hottest operating temperature in any industrial or commercial manufacturing process worldwide) to melt the raw materials in the furnace, primarily scrap metal. Heat is generated as electricity (as much as 150,000 amps) passes through the electrodes and creates an electric arc between the electrodes and the raw materials.

Graphite electrodes are currently the only products available that have the high levels of electrical conductivity and the capability of sustaining the high levels of heat generated in an electric arc furnace producing steel. Therefore, graphite electrodes are essential to the production of steel in electric arc furnaces. We believe there is currently no commercially viable substitute for graphite electrodes in electric arc furnace steel making. We estimate that, on average, the cost of graphite electrodes represents about 3% to 4% of the cost of producing steel in a typical electric arc furnace.

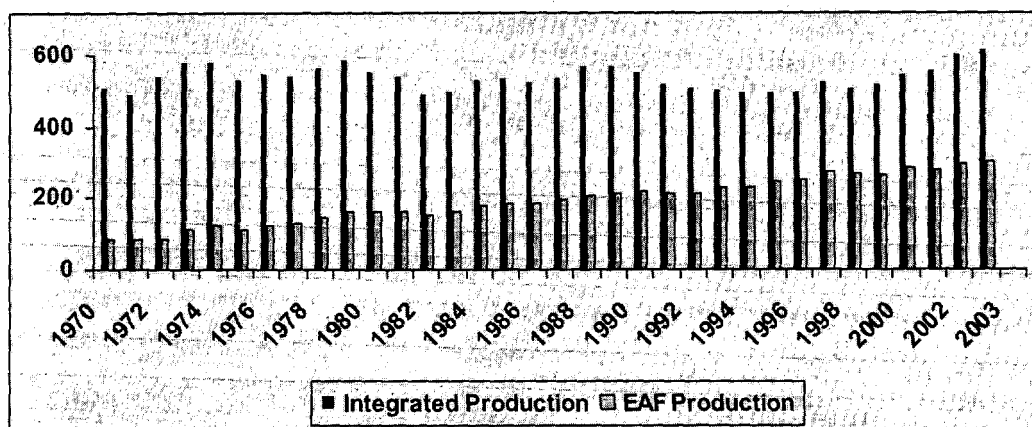
Electric arc furnace steel production has, for many years, been the higher long term growth sector of the steel industry, at an estimated average annual growth rate of about 3%. There are currently in excess of 2,000 electric arc steel production furnaces operating worldwide. Worldwide electric arc furnace steel production grew from about 90 million metric tons in 1970 to 279 million metric tons in 2001, 299 million metric tons in 2002 and 305 million metric tons



in 2003. As a percentage of total steel production, worldwide electric arc furnace steel production grew from about 14% of total steel production in 1970 to about 33% of total steel production in 2001, about 33% of total steel production in 2002 and about 32% of total steel production in 2003. We estimate that steel makers worldwide added net new electric arc furnace steel production capacity of about 11 million metric tons in 2001, about 15 million metric tons in 2002 and about 10 million metric tons in 2003. We believe that a portion of the new capacity added in the past three years has not yet become operational. We are aware of about 28 million metric tons of announced new electric arc furnace steel production capacity that is scheduled to be added in 2004 through 2006.

An electric arc furnace used for steel production provides significant operational flexibility. It can be shutdown and restarted relatively quickly compared to a basic oxygen furnace in response to changing market dynamics. As a result, electric arc furnace steel producers are better able to adjust production to respond to changes in demand and prices for steel on a regional and global basis. The following table illustrates the growth in electric arc steel production since 1970.

**Worldwide steel production  
(Millions of metric tons)**



Sources: International Iron and Steel Institute and GTI estimates

We believe that, as global economic conditions improve, electric arc furnace steel production will continue to grow at an average annual long term growth rate of about 3% to 4%.

*Relationship Between Graphite Electrode Demand and Electric Arc Furnace Steel Production.* We believe that the worldwide growth in electric arc furnace steel production has been due primarily to the significantly lower capital requirements to construct a mini-mill as compared to an integrated steel production plant and to improvements in the cost effectiveness and operating efficiency of electric arc furnace steel making. We believe that growth has also been due to the fact that, as a result of technical advances, electric arc furnace steel makers are capable of producing some of the higher quality steel grades used in flat products that have historically been produced by basic oxygen furnace steel makers.

The improved efficiency of electric arc furnaces has resulted in a decrease in the average rate of consumption of graphite electrodes per metric ton of steel produced in electric arc furnaces (called “**specific consumption**”). We estimate that specific consumption declined from about 4.3 kilograms of graphite electrodes per metric ton of steel produced in 1990 to about 2.3 kilograms per metric ton in 2003. We believe that the decline in specific consumption will continue at a more gradual pace, on average, as the costs (relative to the benefits) increase for electric arc furnace steel makers to achieve further efficiencies in specific consumption. We further believe that the rate of decline in the future will be impacted by the addition of new electric arc furnace steel making capacity. To the extent that this new capacity replaces old capacity, it has the effect of reducing industry wide specific consumption due to the efficiency of new electric arc furnaces. To the extent that this new capacity increases industry wide electric arc furnace steel production capacity and that capacity is utilized, it creates additional demand for graphite electrodes. While we believe that the rate of decline of specific consumption over the long term has become lower, we believe that there was a slightly greater decline in 2001 than would otherwise have been the case due to the shutdown of older, less efficient electric arc furnaces primarily due to industry rationalization and weak global and regional economic conditions.

The changes in electric arc furnace steel production reflected in the preceding table resulted in corresponding changes in demand for graphite electrodes. Graphite electrode demand is expected to grow over the long term at an estimated average annual growth rate of about 1% to 2% based on the anticipated growth of electric arc furnace steel production and decline in specific consumption described above. Other than in China, for which reliable information is generally not available, we believe that the graphite electrode industry manufacturing capacity utilization rate worldwide was about 84% in 2001, about 93% in 2002 and about 97% in 2003 and that, in 2003, graphite electrode manufacturing capacity worldwide was about 750,000 metric tons.

*Production Capacity.* Currently, there is only one other global manufacturer and about ten other notable regional or local manufacturers of graphite electrodes. There have been no entrants in the graphite electrode industry for more than 50 years.

Since 1998, we have reduced our graphite electrode manufacturing capacity by about 55,000 metric tons, net of the expansion of our facility in Mexico and incremental expansions in our other facilities. We shutdown four graphite electrode manufacturing facilities in Canada, Germany, the U.S. and Italy, and redeployed capacity to certain of our larger, lower cost, strategically located facilities in Mexico, South Africa and Spain. In addition, from 1998 through 2003, two of our competitors reduced their annual graphite electrode manufacturing capacity. Their announced net reductions totaled more than 35,000 metric tons. Two of our graphite electrode competitors, who had about 60,000 metric tons of annual graphite electrode manufacturing capacity, filed for bankruptcy protection. These competitors were liquidated, and the competitor in the U.S. sold a portion of its graphite electrode manufacturing capacity (which we estimate was approximately 19,000 metric tons) to a third party bidder in a bankruptcy auction process in April 2003. The third party has begun to produce and sell graphite electrodes.

During the 2002 second quarter, we launched the expansion of our facility in Mexico to increase its capacity from 40,000 metric tons to about 60,000 metric tons annually. We

completed the expansion during the 2003 first quarter. We believe that this facility is now the largest graphite electrode manufacturing facility in the world and strengthens our ability to satisfy demand from the large NAFTA market on a low cost basis.

As a result of repositioning our global manufacturing network and other actions, as well as our proprietary process and technological improvements, we now have the capability, depending on product demand and mix, to manufacture more than 220,000 metric tons of graphite electrodes annually from our existing facilities.

We believe that, since 1998, net worldwide graphite electrode manufacturing capacity has been reduced by about 12%.

We believe that there are significant barriers to entrants to our industry, including the need for extensive product and process know-how and other intellectual property and a high initial capital investment. We are not aware of any "greenfield" construction of new graphite electrode manufacturing facilities. We believe that we can significantly expand our graphite electrode manufacturing capacity at a cost that is less than 15% of the initial investment for "greenfield" capacity.

*Graphite Electrode Market Share.* We estimate that about 63% of the electric arc furnace steel makers worldwide (other than in China, for which reliable information is not generally available) and about 81% of the electric arc furnace steel makers in the U.S. and the markets where we have manufacturing facilities purchased all or a portion of their graphite electrodes from us in 2003. We further estimate that we supplied about 45% of all graphite electrodes purchased in the U.S. and the markets where we have manufacturing facilities, and about 21% worldwide, in each case in 2003. We estimate that the worldwide market for graphite electrodes was about \$2.2 billion in 2003.

We estimate that, in 2003, sales in the U.S. accounted for about 21% of our total net sales of graphite electrodes and that we sold graphite electrodes in about 50 countries, with no other country accounting for more than 13% of our total net sales of graphite electrodes.

Over the past several years, we estimate that we increased our share of the worldwide market for graphite electrodes by more than 10%, from 19% in 2001 to about 21% in 2003. In addition to increased volumes, this shift in our customer base enables us to further optimize efficiencies and reduce costs.

We believe that, in many cases, the growing number of larger global customers created by the continuing consolidation trend within the steel and aluminum industries are more creditworthy than smaller producers and that we are able to better manage our exposure to trade credit risk as we increase the percentage of our total net sales sold to them.

*Cathodes.* Cathodes consist primarily of blocks used as floor lining for, and conductors of electricity in, furnaces (called "pots") used to smelt aluminum. Cathodes are made from either carbon or graphite. Cathodes are currently the only products available that have the high levels of electrical conductivity and the capability of surviving the highly corrosive high temperature environments in an aluminum smelting furnace. We believe that there are no current commercially viable substitutes for cathodes in aluminum smelting furnaces. In a typical

aluminum smelting furnace operating at a typical rate and efficiency of production, the cathodes must be replaced every 5 to 8 years. Since cathodes are used in the construction of pots, demand for them is directly related to both the number of new aluminum smelting furnaces being built and the frequency with which existing furnaces are upgraded and relined.

We operate our cathode business through a 70% owned joint venture with Pechiney, the world's recognized leader in aluminum smelting technology. In late 2003, Pechiney was acquired by Alcan, one of the world's largest aluminum producers. We have developed high performance graphite cathodes that we believe have become the preferred technology in the industry. We are benefiting from Pechiney's smelting technology expertise and our graphite technology and expertise in high temperature industrial applications to develop further improvements in graphite cathodes. We believe that use of graphite cathodes (instead of carbon cathodes) allows a substantial improvement in process efficiency.

We believe that worldwide demand for aluminum will continue to grow over the long term at an average annual rate of about 3% to 4%, primarily because of greater use of aluminum by the transportation industry and higher growth in demand in China. We also believe that, over the long term, new aluminum smelting furnaces will need to be built to meet the growth in demand. We believe, therefore, that demand for graphite cathodes will continue to grow, both for new smelting furnaces as well as for substitution for carbon cathodes in relines and upgrades of existing smelting furnaces.

We believe that we are the largest manufacturer of cathodes in the world. In 2002, we expanded the manufacturing capacity of our Brazilian facility, the only non-captive manufacturer of cathodes in the Americas. We estimate that we sold about 14% of all cathodes sold in the world in 2003. There are seven notable producers of cathodes in the world. We estimate that the worldwide market for cathodes was about \$410 million in 2003.

***Advanced Synthetic Graphite Products.*** Advanced synthetic graphite products include isomolded, molded and extruded products in a variety of shapes and grades, weighing from a few kilograms to ten metric tons, for diverse applications. These materials include primary products (such as bulk graphite blocks (called "**billets**") that are sold to customers for further processing or finishing for end users) and specialty products (such as pressure casting molds for steel railroad car wheels).

Our isomolded products are used in applications including continuous casting and hot press manufacturing processes and resistance heating elements. Our molded products are used in applications including high temperature furnaces and crucibles, chemical processing equipment and pressure and centrifugal casting equipment. Our extruded products are used in applications including fused refractories, diamond drill molds and semiconductor components as well as in applications in aluminum smelting.

We manufacture our advanced synthetic graphite products using raw materials, processes and technologies similar to those we use to make graphite electrodes and cathodes. We estimate the worldwide market for advanced synthetic graphite products was about \$450 million in 2003.

## Natural Graphite Line of Business

Our natural graphite line of business manufactures advanced flexible graphite products and flexible graphite products and provides related services and technologies for both established markets and new markets with high growth potential for us. We currently sell our products primarily to the electronics, fuel cell power generation, sealing and industrial thermal management markets. We provide cost effective engineering and other technical services and license our proprietary technology in markets where we do not anticipate engaging in manufacturing ourselves. Our natural graphite products are developed and manufactured by our subsidiary, AET.

Advanced flexible graphite products include highly engineered eGRAF® thermal interface products, heat spreaders, including those sold under our SpreaderShield™ brand name, and heat sinks for electronic device applications. We also manufacture highly engineered GRAFCELL® flow field plates, gas diffusion layers and other advanced flexible graphite products for PEM fuel cells and fuel cell systems for use in the power generation and transportation markets. Flexible graphite products include gasket and sealing material for high temperature and corrosive environments in automotive, petrochemical and other applications. We are one of the world's largest manufacturers of natural graphite products for all of these uses and applications.

The versatility of our proprietary processes and equipment enables us to modify natural graphite products to meet a variety of customer needs. We work with our customers to develop technologically advanced solutions, utilizing our industry-leading technological and manufacturing strengths and capabilities.

***Electronic Thermal Management Products.*** Thermal management products are designed to dissipate heat generated by electronic devices. Electronics manufacturers are currently experiencing constraints in the development of ever more advanced compact devices because of the limitations of current thermal management products and technologies to dissipate the higher levels of heat generated. We have developed and are continuing to develop and introduce highly engineered advanced flexible graphite products that improve thermal management in electronic devices. We expect demand for our products to grow as industry trends continue toward smaller, more powerful electronic devices which generate more heat and require more advanced thermal solutions.

Advanced flexible graphite products include highly engineered thermal interface products, heat spreaders and heat sinks for current and next generation electronic device applications, including computers, servers, televisions, digital video devices, cell phones and other communications, industrial, military, office and automotive equipment. Thermal interface products reside between a chip set or other heat generating unit in a device and the remaining components in the heat dissipation system in the device. Heat sinks are finned units (similar to radiators) that dissipate heat via air movement into the surrounding environment. Heat spreaders are engineered plates or tubes that move or spread heat from hot spots, such as a processing chip, to other locations in the device for dissipation into the environment.

We expect that the superior ability of our products to manage heat will allow our customers and others to redesign electronic devices to reduce cost, size and weight while improving performance. Our products offer many advantages over competitive products, such as copper or aluminum. These advantages include:

- excellent ability to conduct heat;
- mechanical and thermal stability;
- lightweight, compressible and conformable nature;
- cost competitiveness; and
- ease of handling.

Our product lines include eGRAF® heat spreaders, including those sold under our SpreaderShield™ brand name, heat sinks and other thermal management products and eGRAF® Hi-Therm™ thermal interface materials. We can provide both custom and off-the-shelf products and sophisticated solutions for cooling complex electronic devices.

During 2002, we began commercializing our line of eGRAF® thermal management products. Since then, we have obtained orders for eGRAF® products from industry leading electronic companies such as Agilent, Cisco, Hitachi, IBM, Intel, Lucent, Maxtor and Nortel. We have over 140 product approvals from strategic partners and customers. Throughout 2003, we obtained new approvals and orders from industry leading electronics companies such as Sony, NEC and Sharp for a wide range of eGRAF® products. In addition, we obtained approval from Intel for eGRAF® Hi-Therm™ thermal interface materials for applications in several Intel processors, including the Pentium® 4 processor.

We estimate that the market for our current products is about \$300 million and expect it to grow at an annual rate in excess of 20% over the next three years. Sales of our products are growing, from about \$500,000 in 2002 to \$2.2 million in 2003 and an estimated \$8 million in 2004.

We believe that the thermal management component market for computers, servers, televisions, digital video devices, cell phones and other communications, industrial, military, office and automotive equipment was about \$3 billion in 2001.

**Fuel Cell Products.** We are the leading manufacturer of natural graphite products for PEM fuel cells and fuel cell systems. We manufacture highly engineered flow field plates, gas diffusion layers and other advanced flexible graphite products for PEM fuel cells and fuel cell systems for use in transportation and power generation applications.

Fuel cells were invented in 1839 and were first used in practical applications in the 1960s in NASA's Gemini and Apollo space programs to provide electricity aboard spacecrafts. Fuel cells provide environmentally friendly electrical power generation by combining hydrogen (which can be obtained from a variety of sources such as methanol, natural gas and other fuels) with oxygen (from air, not necessarily pure) to produce electricity through an electrochemical

process without combustion. The only material by-products from this process are water and heat. We believe that PEM fuel cells have emerged as the leading fuel cell technology because they offer higher power density, lower weight and lower costs relative to alternative fuel cell technologies. PEM fuel cells have the potential for use as replacements for existing power generators in the following markets:

- transportation applications, such as automobiles, buses and other vehicles;
- stationary applications, such as residences, commercial buildings and industrial operations; and
- portable applications, such as machinery, equipment and electronic devices.

We expect significant growth from this opportunity in the second half of this decade.

Ballard Power Systems, the world leader in PEM fuel cells, is our strategic partner under an exclusive product supply agreement that continues through 2016 and an exclusive collaboration agreement that continues through 2011. Our products are essential components of its fuel cells.

In October 2003, we were awarded two cash grants totaling \$1.4 million from the State of Ohio to support the commercialization of our fuel cell technologies. We will use the grants to develop high volume manufacturing processes for flow field plates utilizing our GRAFCELL® advanced flexible graphite products.

*Transportation Market.* We believe that manufacturers of automobiles, buses and other vehicles are searching for a viable alternative to the internal combustion engine. We also believe that PEM fuel cells have the potential to provide the power of an internal combustion engine, to reduce or eliminate polluting emissions, and to lower vehicle operating costs through higher fuel efficiency and lower maintenance costs. Advanced flexible graphite products are used in PEM fuel cells and fuel cell systems. We market our advanced flexible graphite products for fuel cell applications under the GRAFCELL® name. According to an Allied Business Intelligence report published in 2003, the use of fuel cell systems in the global transportation market is projected to reach 1.5 million units by 2013.

We believe, based on actual revenues and statements by Ballard Power Systems customers and other automobile manufacturers, that commercial sales of PEM fuel cells for use in automobiles began in late 2002, increased in 2003 and will continue to increase in 2004. Ballard Power Systems has announced that about 85% of the 175 fuel cell vehicles that were operational worldwide in 2003 and are expected to be operational worldwide in 2004 were or will be powered by its PEM fuel cells that contain GRAFCELL® advanced flexible graphite products.

We believe that the significant market opportunities for fuel cell vehicles will be supported by governmental programs. In January 2002, the Bush administration launched a new program called FreedomCAR aimed at spurring the growth of hydrogen fuel cells for cars and trucks. In January 2003, the Bush administration launched FreedomFUEL, focusing on

technologies and infrastructure needed to produce, distribute and store hydrogen for fuel cells. About \$1.7 billion of funding is proposed over the next five years under these programs. The European Union and Japan have each announced similar initiatives, and the U.S. and the European Union have agreed to cooperate to overcome barriers to fuel cell commercialization.

In 2003, our sales to the fuel cell industry were approximately \$1.5 million. We estimate that the market for our fuel cell products in 2012 will exceed \$500 million.

***Stationary Power Market.*** Fuel cells have the potential to provide electric power for residential, commercial and industrial stationary applications. Long-term increases in electric power demand for these applications are expected, driven by continued growth of digital communications systems and infrastructures and industrialization of developing nations as well as continued population and personal income growth. We believe that demand for technologies such as fuel cells will be driven by requirements for uninterruptible electric power with a high degree of reliability and distributed power generation capability as well as environmental concerns. During 2003, stationary power products were sold and delivered to customers in the residential, telecommunications, industrial, research and government sectors. In 2003, Allied Business Intelligence estimated that the North American market for stationary fuel cells will be about \$5 billion in 2013.

***Portable Power Market.*** Fuel cells have the potential to provide electric power currently provided by rechargeable and nonrechargeable batteries in many portable electronic devices used in consumer, construction, marine and industrial applications. The fastest growing market opportunity is expected to be laptop computers, cell phones and personal digital assistants and other handheld devices. According to an Allied Business Intelligence report published in 2003, the estimated North American market for portable devices will be 700 million units by 2013, with an estimated value of \$5.2 billion. Commercial sales are expected to begin with small portable device applications in 2004.

***Sealing products.*** Flexible graphite is lightweight, conformable, temperature-resistant and inert to most chemicals. Due to these characteristics, it is an excellent gasket and sealing material that to date has been used primarily in high temperature and corrosive environments in the automotive and petrochemical industries. For example, automotive applications for our flexible graphite products include head gaskets and exhaust gaskets as well as engine and exhaust heat shields. We market our flexible graphite products used in the sealing industry under the GRAFOIL® name.

***Industrial Thermal Management Products.*** Advanced flexible graphite products provide superior heat management solutions for insulation packages, induction furnaces, high temperature vacuum furnaces and direct solidification furnaces and other industrial thermal management applications. We market our advanced flexible graphite products for these applications under the GRAFSHIELD® name.

### **Advanced Carbon Materials Line of Business**

Our advanced carbon materials line of business includes carbon electrodes and refractories as well as related services.



**Carbon Electrodes.** Carbon electrodes are used in the production of silicon metal, a raw material primarily used in the manufacture of aluminum. Carbon electrodes are also used in the production of ferro-alloys and thermal phosphorous. Carbon electrodes are used and consumed in a manner similar to that of graphite electrodes, although at lower temperatures and with different consumption rates. We believe that demand for carbon electrodes fluctuates based primarily on changes in production of silicon metal. We also believe that the silicon metal industry is directly impacted by changes in global and regional economic conditions. We estimate that demand for carbon electrodes was about 69,000 metric tons in each of 2001 and 2002 and 81,000 metric tons in 2003.

We estimate that we sold about 25% of the carbon electrodes sold in the world in 2003. We estimate that the worldwide market for carbon electrodes was about \$130 million in 2003. There are two significant manufacturers of carbon electrodes in the world. We are the only manufacturer of carbon electrodes in the Western Hemisphere.

**Refractories.** Refractories are made in a multitude of standard and custom shapes and sizes. Smaller refractories are sometimes called refractory bricks and larger ones are sometimes called refractory blocks. Graphite is added to some carbon refractories (called “**semi-graphitic**” refractories) to adjust performance characteristics. Carbon and semi-graphitic refractory bricks are used primarily as chemical industry tank and reactor linings and blast furnace and submerged arc furnace hearth walls. These refractory bricks have excellent resistance to corrosion and abrasion. Our carbon refractory brick is one of the established standards for North American blast furnaces. Our semi-graphitic refractory brick is used where higher conductivity is required or when additional abrasion resistance is desired.

We also manufacture graphite refractory bricks which are used primarily for their high thermal conductivity and the ease with which they can be machined to large or complex shapes. Common applications in blast furnace and submerged arc furnaces are cooling courses in the hearth bottoms for heat distribution and removal, backup linings in hearth walls for improved heat transfer and safety, and lintels over copper cooling plates where a single brick cannot span the cooling plate.

Carbon refractory blocks are used primarily as submerged arc and other furnace hearth walls and bottoms, for which they are machined to shape and assembled in a variety of designs. We also provide special shapes (such as sidewall blocks, tap blocks, tuyere surrounds and runner liners) for blast furnaces, submerged arc furnaces and cupola furnaces.

### **Production Planning, Product Manufacturing and Distribution**

Over the last few years, we have rationalized our facilities and redeployed capacity to larger facilities in lower cost countries. The repositioning of our network allows us to achieve significant increases in productivity and output from our existing assets, including economies of scale and other cost savings that we believe will increase as we grow our sales. For example, we are able to deliver the same graphite electrode sales volume that we delivered over the past few years with a significantly lower fixed cost base. In addition, we believe that our network provides us with the operational flexibility to source customer orders from the facility that optimizes our profitability and, with the continuing consolidation in the steel and aluminum

industries, provides us a significant growth opportunity in serving larger multi-plant global customers. We believe that our unique network provides us with significant competitive advantages in costs and product quality, proximity to customers, timely and reliable delivery and operational flexibility to adjust product mix to meet the diverse needs of a wide range of customers. We also believe that our products are among the highest quality products available in our industry.

### **Production Planning**

We plan and source our graphite electrode and cathode production globally. We have evaluated virtually every aspect of our global supply chain, and we have redesigned and implemented changes to our global manufacturing, marketing and sales processes to leverage the strengths of our repositioned manufacturing network. Among other things, we have eliminated manufacturing bottlenecks, improved product and service quality and delivery reliability, expanded our range of products, and improved our global sourcing and product mix for our customers. We continue to implement global business and work process rationalization and transformation initiatives, including improvements in performance through realignment and enterprisewide standardization of supply chain processes and systems and consolidation and streamlining of our order processes. These activities are targeted for completion by the end of 2005.

We deploy synchronous work processes at most of our manufacturing facilities. We have also installed and continue to install and upgrade proprietary process technologies at our synthetic graphite manufacturing facilities and use statistical process controls in our manufacturing processes.

We have developed, and begun installing, a global information system using J.D. Edwards One World information systems for both enterprise resource planning and advanced production planning for managing our supply chains. The advanced planning capabilities that we have developed for our global synthetic graphite manufacturing capacity allow us to use our modularized capacity to seek to optimize, under then current conditions, timely product delivery to customers and changes in variables affecting profitability, including variable production costs, changes in currency exchange rates and changes in product mix. These capabilities also enable us to seek to maximize capacity utilization at as many of our facilities as possible as well as minimize our average fixed production cost per unit produced. Our global manufacturing network also helps us to minimize risks associated with dependence on any single economic region.

### **Manufacturing**

***Electrodes, Cathodes and Refractories.*** The manufacture of a graphite electrode takes, on average, about two months. Graphite electrodes range in size from three inches to 30 inches in diameter and two feet to nine feet in length and weigh between 20 pounds and 4,800 pounds (2.2 metric tons).

The manufacture of graphite electrodes involves the six main processes described below:

*Forming:* Calcined petroleum coke is crushed, screened, sized and blended in a heated

vessel with coal tar pitch. The resulting plastic mass is extruded through a forming press and cut into cylindrical lengths (called "green" electrodes) before cooling in a water bath.

- Baking:* The "green" electrodes are baked at about 1,400 degrees Fahrenheit in specially designed furnaces to purify and solidify the pitch and burn off impurities. After cooling, the electrodes are cleaned, inspected and sample-tested.
- Impregnation:* Baked electrodes are impregnated with a special pitch when higher density, mechanical strength and capability to withstand higher electric currents are required.
- Rebaking:* The impregnated electrodes are rebaked to solidify the special pitch and burn off impurities, thereby adding strength to the electrodes.
- Graphitizing:* Using a process that we developed, the rebaked electrodes are heated in longitudinal electric resistance furnaces at about 5,000 degrees Fahrenheit to restructure the carbon to its characteristically crystalline form, graphite. After this process, the electrodes are gradually cooled, cleaned, inspected and sample-tested.
- Machining:* After graphitizing, the electrodes are machined to comply with international specifications governing outside diameters, overall lengths and joint details. Tapered sockets are machine-threaded at each end of the electrode to permit the joining of electrodes in columns by means of correspondingly double-tapered machine-threaded graphite nipples (called "pins").

Cathodes range in size from 5 feet to 12 feet and weigh between 800 pounds and 3,700 pounds. Graphite cathodes are manufactured by a comparable process. Carbon electrodes (which can be up to 55 inches in diameter) and carbon cathodes are manufactured by a comparable process (excluding impregnation and graphitization). Refractories are manufactured using a process comparable to that for carbon electrodes or a proprietary "hot press" process. We believe that we manufacture the broadest range of sizes in graphite electrodes and cathodes and that the quality of our electrodes and cathodes is competitive with or better than that of comparable products of any other major manufacturer.

We generally warrant to our customers that our electrodes and cathodes will meet our specifications. Electrode and cathode returns and replacements have aggregated less than 1% of net sales in each of the last three years.

As a result of repositioning our global manufacturing network and other actions, together with our proprietary process technology, we now have the capability, depending on product demand and mix, to incrementally manufacture more than 220,000 metric tons of graphite electrodes and more than 40,000 metric tons of cathodes annually from our existing assets. We also have the capacity to manufacture about 30,000 metric tons of carbon electrodes annually. The following table sets forth certain information regarding our sales volumes.

**For the Year Ended December 31,**

**2001      2002      2003**

(Metric tons)

Volume of graphite electrodes sold .....	174,000	180,500	200,500
Volume of cathodes sold.....	33,000	37,000	36,000
Volume of carbon electrodes sold.....	19,000	17,000	21,000

Graphite electrodes are manufactured in Brazil, Mexico, South Africa, France, Spain and Russia. Cathodes are manufactured in France and Brazil. Carbon electrodes and refractories are manufactured in the U.S.

***Advanced Synthetic Graphite Products.*** Advanced synthetic graphite products are manufactured by a process comparable to that for graphite electrodes. Our facilities have the capability to process a wide range of raw materials, mill, mix and extrude or mold small to very large graphite blocks, impregnate, bake and graphitize the blocks, purify the blocks to reduce the impurities to parts per million levels, and machine the blocks using advanced machining stations to manufacture products finished to high tolerances and unique shapes. Advanced synthetic graphite products are manufactured in the U.S. and France.

***Natural Graphite.*** We use a proprietary process to convert mined natural graphite flake into expandable graphite, an intermediate product. During this process, we can manufacture expandable graphite with a number of specific properties. For example, we can change its sensitivity to temperature, modify its particle size and give it long term stability. We manufacture flexible graphite by further processing expandable graphite. We fabricate finished gasket and sealing products by fabricating flexible graphite into sheet, laminate and tape products. We manufacture advanced flexible graphite by subjecting expandable or flexible graphite to additional proprietary processing. These additional processing steps alter the properties and characteristics of the graphite to make materials with modified electrical, thermal and strength characteristics.

Our natural graphite line of business operates two state-of-the-art manufacturing facilities in the U.S. These facilities have the capability to chemically treat natural graphite flake, bake the flake in high temperature furnaces to expand the graphite flake, mechanically form and calender the expanded flake, and form and shape intermediate and finished products. We believe that we operate the world's most technologically sophisticated advanced natural graphite production line.

***Quality Standards and Maintenance.*** Certain of our global manufacturing facilities are certified and registered to QS-9000, the U.S. quality standard, as well as ISO-9002, the international quality standard. Our natural graphite line of business has a quality assurance system designed to meet the most stringent requirements of its customers. Major maintenance at our facilities is conducted on an ongoing basis.

***Raw Materials and Suppliers.*** The primary raw materials for electrodes and cathodes are engineered by-products and residues of the petroleum and coal industries. We use these raw materials because of their high carbon content. The primary raw materials for graphite electrodes and graphite cathodes are calcined petroleum cokes (needle coke for electrodes and

regular grade cokes for cathodes), coal tar pitch and petroleum pitch. The primary raw materials for carbon electrodes and carbon cathodes are calcined anthracite coal and coal tar pitch and, in some instances, a petroleum coke-based material. The primary raw material for our natural graphite products is natural graphite flake.

We purchase raw materials from a variety of sources. In many cases, we purchase them under short term contracts or on the spot market, in each case at fluctuating prices. We believe that adequate supplies of these raw materials are available at market prices. We entered into a strategic alliance with ConocoPhillips, the largest producer of petroleum coke, to improve the supply chain for our primary raw material and, since the beginning of 2001, we have purchased a majority of our requirements for petroleum coke, at variable prices, from multiple plants of ConocoPhillips under a supply agreement that continues through the end of 2006. In addition, in 2001, we shut down our coal calcining operations primarily because we entered into a five-year agreement to purchase calcined coal from a third party at a competitive cost. These agreements contain customary terms and conditions. We believe that the quality and cost of these raw materials on the whole is competitive with or better than those available to our major competitors and that, under current conditions, these raw materials are available in adequate quantities. We also believe that we are able to purchase these raw materials on a more cost efficient basis than our competitors who have more limited product lines and production volumes.

We purchase natural graphite flake from a variety of sources. We believe that adequate supplies of natural graphite flake are available at market prices. We entered into an arrangement with Mazarin Mining Corporation to develop and commercialize a natural graphite deposit in Canada. The initial phase of a feasibility study, relating to the quality of the natural graphite flake in the deposit, was completed in 2000 with favorable results. The second phase of the feasibility study was expected to be completed by the end of 2004. However, based on current market conditions relating to the fuel cell industry, the timing of the feasibility study is being reevaluated. The feasibility study is expected to cost us about \$2 million, for which we will receive a 25% interest in the mine. After completion of the study, we may decide to commence commercial production of the deposit with Mazarin, exercise an option to extend the period for the development decision for five one-year periods until 2009, or terminate the arrangement. In the case of extension, we will have to make option payments totaling Cdn. \$800,000 if the option is extended for the full five years. We have the right to purchase the entire production of natural graphite flake from the deposit. We believe that at full capacity, if developed, the deposit should produce about 50,000 tons of natural graphite flake per year, which would make it one of the largest single sources of natural graphite flake in the world. We believe that, if developed, the deposit would have sufficient reserves to meet our projected needs for the next 10 to 15 years. Consummation of the arrangement is subject to, among other things, the receipt of any required governmental approvals. In December 2003, Mazarin completed a reorganization, pursuant to which the assets of Mazarin were transferred to Sequoia Minerals Inc., a subsidiary of Mazarin that was subsequently spun off and that is expected to continue Mazarin's operations and focus on development of metals and industrial minerals. We do not believe that this reorganization will have any material impact on our arrangement.

We purchase energy from a variety of sources. Electric power or natural gas used in manufacturing processes is purchased from local suppliers primarily under short-term contracts or in the spot market. We have entered into short duration fixed rate purchase contracts with

certain of our North American natural gas suppliers in order to mitigate seasonal increases in our natural gas costs. These contracts expire at the end of the 2004 first quarter. In addition, we have entered into natural gas hedge contracts, effectively fixing 100% of our direct and indirect natural gas cost exposure in North America (approximately 45% of direct worldwide exposure) through April 2004.

### **Distribution**

Our graphite electrode customers generally seek to negotiate prices and anticipated volumes on an annual basis. These customers then generally place orders for graphite electrodes three to six months prior to the desired delivery date. These orders are cancelable by the customer. Therefore, we manufacture graphite electrodes and seek to manage graphite electrode inventory levels to meet rolling sales forecasts. We generally seek to maintain an appropriate level of finished graphite electrode inventories, taking into account these factors and the length of graphite electrode manufacturing cycles. We have entered into long term supply contracts with purchasers of our cathodes and carbon electrodes, and we may, from time to time in the future, enter into long term supply contracts with purchasers of graphite electrodes or our other products. Currently, our other products are generally manufactured or fabricated to meet customer orders. Currently, we do not manage or operate based on a backlog.

Finished products are generally stored at our manufacturing facilities. Limited quantities of some finished products are also stored at local warehouses around the world to meet customer needs. We ship our finished products to customers primarily by truck and ship, using "just in time" techniques where practical.

Proximity of manufacturing facilities to customers can provide a competitive advantage in terms of cost of delivery of electrodes and cathodes. The significance of these costs is affected by changes in currency exchange rates, methods of shipment, import duties and whether the manufacturing facilities are located in the same economic trading region as the customer. We believe that our manufacturing facilities are uniquely located around the world to supply graphite electrodes and cathodes globally and that the locations of our facilities provide us with a significant competitive advantage.

### **Sales and Customer Service**

We believe that we are the recognized industry leader in providing value added technical services to customers for our major product lines and that we have the largest customer technical service and related supporting engineering and scientific organizations in our industry, with more than 245 engineers, scientists and specialists around the world. As part of the redesign and implementation of changes to our global business and work processes, we have redirected marketing and sales activities to better service the needs of both existing and new customers.

***Synthetic Graphite Business.*** Our synthetic graphite line of business sells products in every major geographic market primarily through its direct sales force, whose members are trained and experienced with our products. Its direct sales force operates from about 16 sales offices located around the world. It also sells products through independent sales agents and distributors.

Our synthetic graphite line of business has customer technical service personnel based around the world who assist customers to maximize their production and minimize their costs. It employs about 160 engineers and technicians to provide technical service and advice to key steel and other metals customers in furnace design, operation and upgrade to reduce energy consumption, improve raw material costs and increase output. In connection therewith, it recently developed and is now providing the UCAR Connex™ Virtual Meltshop™ Monitor to key electric arc furnace steel producers. The UCAR Connex™ Virtual Meltshop™ Monitor is a computer-based furnace data collection and analytic service with real time and web based capabilities. It is the next generation of service that we believe is not available from any other source and is particularly valuable to multi-plant customers. We have an agreement with AMI GE, S.A. de C.V., a Mexican supplier of furnace regulators and other furnace equipment that is 50% owned by General Electric, to market and supply our UCAR Connex™ Virtual Meltshop™ Monitor to their customers. We believe that our synthetic graphite line of business has more technical service engineers located in more countries than any of its competitors.

The sales and service groups of our synthetic graphite line of business include those dedicated to cathodes who are employed by Carbone Savoie. Carbone Savoie's sales and service groups work closely with those of Pechiney, which is our 30% joint venture partner in Carbone Savoie, to maximize use of their respective products and technologies.

**Natural Graphite Business.** Our natural graphite line of business has six direct field sales employees in the U.S. and two in Europe. It also sells products through independent sales agents and distributors. Its customer service personnel, supported by a staff of more than 30 development scientists and manufacturing engineers, assist customers in learning about and using our products, improving their manufacturing processes and operations, and solving their technical dilemmas. A particular focus is assisting customers and others who design, develop or produce electronic devices to integrate our advantaged flexible graphite product solutions into their new devices.

**Advanced Carbon Materials Business.** Our advanced carbon materials line of business sells products through the direct global sales force, located in all of its major markets, as well as through independent agents and distributors. Its U.S. sales office coordinates the activities of an experienced sales staff and these agents and distributors. Our experienced engineering staff provides technical service to customers around the world. It provides specialized technical assistance to submerged arc and other furnace operators with regard to product performance, furnace monitoring and operations analysis. We believe that its customer technical service staff is highly regarded.

## **Technology**

We believe that we are the industry leader in graphite and carbon materials science and high temperature processing know-how and that we operate the premier research, development and testing facilities in our industry. We have over 100 years of experience in the research and development of graphite and carbon technologies. Over the past several years, we have analyzed our intellectual property portfolio to identify new product opportunities in markets with high growth potential for us, redirected research to enhance and exploit our portfolio and accelerated development of products for those markets.

**Research and Development.** We conduct our research and development both independently and in conjunction with our strategic partners, customers and others. We have two dedicated technology centers, one in Ohio, which is used by all of our lines of business, and the other in France, which is used by Carbone Savoie. We also have a pilot plant located in Ohio that has the capability to produce small or trial quantities of new or improved synthetic or natural graphite products. In addition, we have a state-of-the-art testing facility located in Ohio capable of conducting physical and analytical testing for those products as well as process technology. The activities at these centers and facilities are integrated with the efforts of our engineers at our manufacturing facilities who are focused on improving manufacturing processes.

We believe that our technological and manufacturing strengths and capabilities provide us with a significant growth opportunity as well as a competitive advantage and are important factors in the selection of us by industry leaders and others as a strategic partner. Our technological capabilities include developing products with superior thermal, electrical and physical characteristics that provide a differentiating advantage. We seek to exploit these strengths and capabilities across all of our businesses, to improve existing products and to develop and commercialize new products for markets with high growth potential for us. In particular, we believe that our research and development capabilities were an important factor in the selection of us by Ballard Power Systems to enter into an exclusive long term product development and collaboration agreement.

Developments by us include:

- larger and stronger graphite electrodes;
- new chemical additives to enhance raw materials used in the manufacture of graphite electrodes;
- patented advanced pin technology for graphite electrodes;
- improved supersize graphite electrodes for the most demanding electric arc steel producing furnaces;
- cold pastes with reduced environmental impact for use with cathodes;
- patented processing technology for high performance graphite cathodes which have become the preferred products in the industry;
- products for PEM fuel cells that are enabling fuel cell commercialization; and
- new electronic thermal management technologies with over 140 product approvals from industry leading strategic partners, customers and others.

We have been awarded preferred or certified supplier status by many major steel and aluminum companies and have received numerous technological innovation and other awards by industry groups, customers and others. In September 2003, we received *R&D Magazine's* prestigious R&D 100 Award, granted to identify the 100 most technologically significant products and



advancements each year, for our achievements in electronic thermal management heat sink products.

A significant portion of our research and development is focused on new product development, including achievement of the objectives of our strategic alliances with companies that use or specify the use of electronic thermal management technologies and our strategic alliance with Ballard Power Systems for PEM fuel cells.

***Technology Licensing and Technical Services.*** We offer, through licensing contracts, rights to use our intellectual property to other firms developing or manufacturing products. We also provide, through service contracts:

- research and development services;
- extensive product testing services (such as high temperature testing and analysis);
- high temperature heat treating services;
- graphite and carbon process and product technology consulting and development services; and
- information services to customers, suppliers and universities to assist in their development of new or improved process and product technology.

Among other things, we provide cost-effective technical services for a broad range of markets and license our proprietary technology for a broad range of applications through our web site. The web site includes technical papers on graphite and carbon science, technical literature and search assistance, and industry news as well as access to our services.

***Intellectual Property.*** We believe that our intellectual property, consisting primarily of patents and proprietary know-how and information, particularly the intellectual property relating to electronic thermal management and fuel cell power generation, provides us with competitive advantages and is important to our growth opportunities. Our intellectual property portfolio is extensive, with over 310 U.S. and foreign patents and 280 U.S. and foreign pending patent applications, which we believe is more than any of our major competitors. Among our competitors, we hold the largest number of patents for flexible graphite as well as the largest number of patents relating to the use of natural graphite for PEM fuel cell applications. In addition, we have obtained exclusive and non-exclusive licenses to various U.S. and foreign patents relating to our technologies. These patents and licenses expire at various times over the next two decades. Over 110 of these patents were granted during the past four years.

We own, and have obtained licenses to, various trade names and trademarks used in our businesses. For example, the trade name and trademark UCAR are owned by Union Carbide Corporation (which has been acquired by Dow Chemical Company) and are licensed to us on a worldwide, exclusive and royalty-free basis until 2015. This particular license automatically renews for successive ten-year periods. It permits non-renewal by Union Carbide commencing after the first ten-year renewal period upon five years' notice of non-renewal. The trade name

and trademark CARBONE SAVOIE are owned by Carbone Savoie and are used in connection with cathodes manufactured by it. The trademark CARBONE SAVOIE is registered in many countries throughout the world.

We rely on patent, trademark, copyright and trade secret laws as well as appropriate agreements to protect our intellectual property. Among other things, we seek to protect our proprietary know-how and information, through the requirement that employees, consultants, strategic partners and others, who have access to such proprietary information and know-how, enter into confidentiality or restricted use agreements.

### **Strategic Alliances**

We pursue strategic alliances that strengthen our business, enhance our research and development initiatives or support our new product commercialization activities. Strategic alliances may be in the form of joint venture, licensing, supply or other arrangements.

***Synthetic Graphite Business.*** We have a strategic alliance in the cathode business with Pechiney, the world's recognized leader in aluminum smelting technology. Pechiney uses its technology in its own smelting operations and licenses its technology to other aluminum producers. Under our alliance, Pechiney is a 30% joint venture partner in our subsidiary, Carbone Savoie, which holds our entire cathode manufacturing capacity. With this alliance, we believe that we are positioned as the quality leader in the low cost production of graphite cathodes, the preferred technology for deployment in new aluminum smelting furnaces due to their ability to provide substantial improvements in process efficiency. We are using Pechiney's smelting technology and our graphite technology and expertise in high temperature industrial applications to develop further improvements in graphite cathodes. Our cathodes are sold to Pechiney for use in its own plants under a requirements contract that remains in effect through 2006 and are marketed to Pechiney's licensees as to well as other aluminum producers.

***Natural Graphite Business.*** We have been working with Ballard Power Systems since 1992 on developing natural graphite products for use in its PEM fuel cells. In 2000, Ballard Power Systems launched its Mark 900 series fuel cell stack and announced that it was the foundation for future Ballard Power Systems' fuel cells for transportation, stationary and portable applications. The flow field plates used in the Mark 900 are made from our GRAFCELL® advanced flexible graphite products. In October 2001, Ballard Power Systems launched its most advanced PEM fuel cell platform to date, the Mark 902. GRAFCELL® advanced flexible graphite products are a strategic material for the Mark 902. Building upon the Mark 900, the advantages of the Mark 902 include lower cost, improved design for volume manufacturing, improved reliability, higher power density and enhanced compatibility with customer system requirements. The unit cell design of the Mark 902 allows scalable combinations to achieve a variety of power outputs ranging from 10 kilowatt to 300 kilowatt and is designed to allow configuration for stationary and transportation applications.

In June 2001, we entered into an exclusive development and collaboration agreement and an exclusive long term supply agreement with Ballard Power Systems, which significantly expand the scope and term of prior agreements. In addition, Ballard Power Systems became a strategic investor in AET, investing \$5 million in shares of Ballard Power Systems' common

stock for a 2.5% equity ownership interest, to support the development and commercialization of natural graphite products for PEM fuel cells. As an investor in AET, Ballard Power Systems has rights of first refusal with respect to certain equity ownership transactions, tag along and drag along rights, and preemptive and other rights to acquire additional equity ownership under certain limited circumstances.

The scope of the current exclusive development and collaboration agreement includes natural graphite products, including flow field plates and gas diffusion layers, for use in PEM fuel cells and fuel cell systems for transportation, stationary and portable applications. The initial term of this agreement extends through 2011. Under the new supply agreement, we will be the exclusive manufacturer and supplier of natural graphite products for Ballard Power Systems' fuel cells and fuel cell systems, other than those natural graphite products which Ballard Power Systems elects in the future to manufacture for itself. The initial term of this agreement, which contains customary terms and conditions (including certain license and royalty provisions), extends through 2016. We have the right to manufacture and sell, after agreed upon release dates, natural graphite products for use in PEM fuel cells to other fuel cell producers.

### **Competition**

***Synthetic Graphite and Advanced Carbon Materials Businesses.*** Competition in the graphite electrode, cathode, advanced synthetic graphite and advanced carbon materials businesses is based primarily on price, product quality and customer service.

There is only one other global manufacturer and about ten other notable regional or local manufacturers of graphite electrodes, including SGL Carbon (whose facilities are located on only two continents, Europe and North America, virtually all of which are located in higher cost countries), and four manufacturers in Japan (one of whom, Showa Denko Carbon, also has a plant located in the U.S.).

Global and regional economic conditions and antitrust investigations, lawsuits and claims are having an impact on the graphite electrode industry. We believe that, at a minimum, these impacts include increased price competition and increased debt or cost burdens, or both, for most manufacturers in the industry. In October 2001, The Carbide/Graphite Group, Inc. filed for bankruptcy protection and, in December 2002, ceased operations. In April 2003, it announced that it sold a portion of its graphite electrode manufacturing capacity (which we estimate was approximately 19,000 metric tons) to a third party bidder in a bankruptcy auction process. The third party has begun to produce and sell graphite electrodes. In late 2002, a German competitor filed for bankruptcy protection and, in early 2003, ceased operations. It is possible that other competitors could make similar bankruptcy filings. It is not uncommon for companies subject to bankruptcy filings to enjoy, at least temporarily, a cost advantage as compared to their competitors. This advantage enables them to compete more aggressively on price. It is also possible that one or more of our competitors could divest graphite electrode manufacturing facilities. These divestitures could increase the number or change the capabilities of our competitors.

There are seven notable manufacturers of cathodes in the world. We believe that we and SGL Carbon are the largest manufacturers in the world. There are two significant manufacturers

of carbon electrodes in the world, us and SGL Carbon. There are about five significant manufacturers of advanced synthetic graphite products in the world.

We believe that there are no current commercially viable substitutes for graphite electrodes in electric arc furnace steel production or for cathodes in aluminum smelting furnaces. We are aware of commercially viable technologies that are competitive with carbon electrodes.

We believe that there are significant barriers to entrants to our industry, including the need for extensive product and process know-how and other intellectual property and a high initial capital investment. It also requires high quality raw material sources and a developed energy supply infrastructure. There have been no entrants in the graphite electrode industry for more than 50 years. We are not aware of any "greenfield" construction of new graphite electrode manufacturing facilities and believe that it is unlikely that new "greenfield" graphite electrode manufacturing facilities will be built during the next several years by existing competitors or entrants due to, among other things, the relatively high initial capital investment. We believe that one or more of our graphite electrode competitors in India are in the process of incrementally expanding their graphite electrode manufacturing capacity.

***Natural Graphite Business.*** Competition in the natural graphite business with respect to existing products is based primarily on quality and price. Competition with respect to services and new products is based primarily on product and service innovation, performance and cost effectiveness as well as customer service, with the relative importance of these factors varying among services, products and customers.

Competitors include companies located around the world that develop and manufacture natural graphite products, including SGL Carbon and Le Carbone, and companies that develop, manufacture or provide substitute or alternative materials, products, services or solutions. We are one of the largest manufacturers of natural graphite products in the world.

Our electronic thermal management products and solutions compete with a wide variety of materials, including copper and other metals, ceramics, conductive rubbers and greases. Our fuel cell products compete with other graphitic products, including fibers, composites and synthetic graphite, and metal products such as stainless steel. Our sealing and gasket products compete with various fiber products such as asbestos, cellulose and synthetic composites as well as stainless steel and other metals. Our fire retardant products compete with compounds containing phosphates, halogens and hydrated aluminas as well as many other materials. Our industrial thermal management products compete with a wide variety of materials, including natural and synthetic fibers, other carbon forms and metal products.

### **Environmental Matters**

We are subject to a wide variety of federal, state, local and foreign laws and regulations relating to the presence, storage, handling, generation, treatment, emission, release, discharge and disposal of hazardous, toxic and other substances and wastes governing our current and former properties and neighboring properties and our current operations. These laws and regulations (and the enforcement thereof) are periodically changed and are becoming increasingly stringent. We have experienced some level of regulatory scrutiny at most of our

current and former facilities, and have been required to take remedial action and incurred related costs, in the past and may experience further regulatory scrutiny, and may be required to take further remedial action and incur additional costs, in the future. Although this has not been the case in the past, these costs could have a material adverse effect on us in the future.

The principal U.S. laws and regulations to which we are subject include:

- the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Safe Drinking Water Act and similar state and local laws which regulate air emissions, water discharges and hazardous waste generation, treatment, storage, handling, transportation and disposal;
- the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, and the Small Business Liability Relief and Brownfields Revitalization Act of 2002, and similar state laws that provide for responses to and liability for releases of hazardous substances into the environment; and
- the Toxic Substances Control Act and related laws that are designed to assess the risk of new products to health and to the environment at early developmental stages.

Further, laws adopted or proposed in various states impose or may impose, as the case may be, reporting or remediation requirements if operations cease or property is transferred or sold.

Our manufacturing operations outside the U.S. are subject to the laws and regulations of the countries in which those operations are conducted. These laws and regulations primarily relate to pollution prevention and the control of the impacts of industrial activities on the quality of the air, water and soil. Regulated activities include, among other things: use of hazardous substances; packaging, labeling and transportation of products; management and disposal of toxic wastes; discharge of industrial and sanitary wastewater; and emissions to the air.

We believe that we are currently in material compliance with the federal, state, local and foreign environmental laws and regulations to which we are subject. We have received and continue periodically to receive notices from the U.S. Environmental Protection Agency (the "USEPA") or state environmental protection agencies, as well as claims from others, alleging that we are a potentially responsible party (a "PRP") under Superfund and similar state laws for past and future remediation costs at hazardous substance disposal sites. Although Superfund liability is joint and several, in general, final allocation of responsibility at sites where there are multiple PRPs is made based on each PRP's relative contribution of hazardous substances to the site. Based on information currently available to us, we believe that any potential liability we may have as a PRP will not have a material adverse effect on us.

As a result of amendments to the Clean Air Act enacted in 1990, certain of our facilities will be required to comply with new standards for air emissions to be adopted by the USEPA and state environmental protection agencies over the next several years pursuant to regulations that have been or will be promulgated, including the USEPA's anticipated promulgation of maximum achievable control technology standards for carbon and graphite manufacturing plants. The

regulations which have been promulgated to date will necessitate the installation of additional controls and changes in certain manufacturing processes in order for us to achieve compliance with these regulations. Based on information currently available to us, we believe that compliance with these regulations will not have a material adverse effect on us.

We have sold or closed a number of facilities that had solid waste landfills. In the case of virtually all of our sold facilities, we have retained ownership of the landfills. We have closed these landfills, and we believe that we have done so in material compliance with applicable laws and regulations. We continue to monitor these landfills pursuant to applicable laws and regulations. To date, the costs associated with the landfills have not been, and we do not anticipate that future costs will be, material to us.

We establish accruals for environmental liabilities where it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated. We adjust accruals as new remediation and other commitments are made and as information becomes available which changes estimates previously made.

Estimates of future costs of environmental protection are necessarily imprecise due to numerous uncertainties, including the impact of new laws and regulations, the availability and application of new and diverse technologies, the extent of insurance coverage, the identification of new hazardous substance disposal sites at which we may be a PRP and, in the case of sites subject to Superfund and similar state laws, the ultimate allocation of costs among PRPs and the final determination of remedial requirements. Subject to the inherent imprecision in estimating such future costs, but taking into consideration our experience to date regarding environmental matters of a similar nature and facts currently known, we believe that costs and capital expenditures (in each case, before adjustment for inflation) for environmental protection will not increase materially over the next several years.

### **Insurance**

We obtain insurance against civil liabilities relating to personal injuries to third parties, for loss of or damage to property and for environmental matters to the extent that it is currently available and provides coverage that we believe is appropriate upon terms and conditions and for premiums that we consider fair and reasonable. We believe that we have insurance providing coverage for claims and in amounts that we believe appropriate as described above. We cannot assure you, however, that we will not incur losses beyond the limits of or outside the coverage of our insurance. Our insurance has not and will not cover any material liabilities that have or may become due in connection with antitrust investigations, lawsuits or claims.

### **Employees**

Since 1998, we have reduced our global workforce by about 1,700 employees, or over 30%. At December 31, 2003, we had 3,762 employees, of which 1,868 were in Europe (including Russia), 841 were in Mexico and Brazil, 373 were in South Africa, 3 were in Canada, 671 were in the U.S. and 6 were in the Asia Pacific region. At December 31, 2003, 2,706 of our employees were hourly employees.

At December 31, 2003, about 69% of our worldwide employees were covered by collective bargaining or similar agreements, which expire at various times in each of the next several years. At December 31, 2003, about 780 employees, or 21% of our employees, were covered by agreements, which expire, or are subject to renegotiation, at various times through December 31, 2004. We believe that, in general, our relationships with our unions are satisfactory and that we will be able to renew or extend our collective bargaining or similar agreements on reasonable terms as they expire. We cannot assure you, however, that renewed or extended agreements will be reached without a work stoppage or strike or will be reached on terms satisfactory to us.

Excluding our subsidiaries prior to the time when we acquired them, we have not had any material work stoppages or strikes during the past decade.

### **Corporate History**

Our business was founded in 1886 by National Carbon Company. In 1917, National Carbon Company and four other businesses were combined to become the predecessor to Union Carbide Corporation. National Carbon Company eventually became the Carbon Products Division of Union Carbide. In 1989, Union Carbide realigned each of its worldwide businesses into separate subsidiaries. As part of the realignment, the business of the Carbon Products Division was separated from Union Carbide's other businesses and became owned by us. We remained wholly owned by Union Carbide.

In 1991, Union Carbide sold 50% of our common equity to Mitsubishi Corporation. In January 1995, we consummated a leveraged equity recapitalization, following which, among other things, Blackstone Capital Partners II Merchant Banking Fund L.P. and its affiliates held about 70% of our then outstanding common stock, Union Carbide held about 25% and certain members of management held the remaining 5%.

In August 1995, GTI completed an initial public offering of our common stock, in which Union Carbide sold all of our common stock then held by it.

In March 1996 and April 1997, Blackstone sold its shares of our common stock in secondary public offerings and thereafter ceased to be a principal stockholder of GTI.

In June 1997, antitrust investigations by authorities in the U.S. and the European Union were commenced against us and other producers and distributors of graphite and carbon products. Subsequently, antitrust investigations by authorities in other countries and civil antitrust lawsuits were commenced and threatened against us and them. In March 1998, we began to implement management changes, which resulted in a new senior management team.

In February 2000, we completed a debt recapitalization and obtained the Senior Facilities. In July 2001, we completed a public offering of our common stock. In February and May 2002, we completed private offerings of the Senior Notes. In October 2003, we completed a public offering of our common stock. In January 2004, we completed a private offering of the Debentures.

## **Risk Factors and Forward Looking Statements**

*An investment in our securities involves a high degree of risk. The risks described below are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also have a material adverse effect on us. If any of the following risks actually occur, our financial condition, results of operations, cash flows or business could be harmed. In that case, the market price of our securities could decline, and you could lose part or all of your investment.*

### **Risks Relating to Us**

**We are dependent on the global steel and aluminum industries and also sell products to the transportation, semiconductor, petrochemical and other metals industries. Our results of operations may deteriorate during global and regional economic downturns.**

We sell graphite electrodes, which accounted for about 66% of our total net sales in 2003, primarily to the electric arc furnace steel production industry. We also sell cathodes, which accounted for about 13% of our total net sales in 2003, to the aluminum industry. Many of our other products are sold primarily to the transportation, semiconductor, petrochemical and other metals industries. These are global basic industries, and they are experiencing various degrees of growth and consolidation. Customers in these industries are located in every major geographic market. As a result, our customers are affected by changes in global and regional economic conditions. This, in turn, affects overall demand and prices for our products sold to these industries. Accordingly, we are directly affected by changes in global and regional economic conditions. These conditions are affected by events and circumstances beyond our control such as geopolitical events (such as the war on terror and the circumstances involving Iraq and North Korea), changes in demand by consumers, businesses and governments and policy decisions by governments and central banks. As a result of changes in economic conditions, demand and pricing for our products sold to these industries has fluctuated significantly.

Demand for our products sold to these industries may be adversely affected by improvements in our products as well as in the manufacturing operations of customers, which reduce the rate of consumption or use of our products for a given level of production by our customers. In the case of graphite electrodes, we estimate that specific consumption declined from about 4.3 kilograms of graphite electrodes per metric ton of steel produced in 1990 to about 2.3 kilograms per metric ton in 2003. While we believe that the rate of decline of specific consumption over the long term has slowed, we believe that there was a slightly more significant decline in 2001 than would otherwise have been the case due to the accelerated shutdown of older, less efficient electric arc furnaces as a result of global and regional economic conditions.

Sales volumes and prices of our products sold to these industries are impacted by the supply/demand balance as well as overall demand and growth of and consolidation within the end markets for our products. In addition to the factors mentioned above, the supply/demand balance is affected by factors such as business cycles, rationalization within our industry, and output and productivity within our industry and the end markets for our products, some of which factors are affected by decisions by us. In the case of graphite electrodes, although our volume of graphite electrodes sold has increased significantly over the past three years, we have in the past experienced significant fluctuations in volume. In addition, although we implemented



graphite electrode price increases over the past eighteen months, prices have declined since 1998.

Over the past few years, we faced extremely challenging business and industry conditions. Adverse global and regional economic conditions negatively impacted many of the end markets for our products, with many customers in these markets reducing production, becoming less creditworthy or being acquired due to consolidation within their industries. Industry-wide capacity for most of our products exceeded demand, and competition has been intense. Although our net sales and net income have improved in 2003 from 2002, they have declined significantly since 1999.

We cannot assure you that the electric arc furnace steel production industry will continue to be the higher long term growth sector of the steel industry, that the aluminum industry will continue to experience long term growth or that any of the other industries to which we sell products will experience strong recovery from current economic conditions affecting them. Accordingly, we cannot assure you that there will be stability or growth in demand for or prices of graphite electrodes or our other products sold to these industries. An adverse change in global or certain regional economic conditions could materially adversely affect us.

**Any substantial growth in net sales, cash flow from operations or net income from our natural graphite line of business depends on successfully developing, manufacturing and selling new products on a profitable basis. If we are not successful, we will not achieve our planned growth.**

Our planned growth of our natural graphite line of business depends on successful and profitable development, manufacture and sale primarily of thermal management products for electronic devices and products for PEM fuel cells and fuel cell systems.

Successful and profitable commercialization of products is subject to various risks, including risks beyond our control such as:

- the possibility that we may not be able to develop viable products or, even if we develop viable products, that our products may not gain commercial acceptance;
- the possibility that our commercially accepted products could be subsequently displaced by other products or technologies;
- the possibility that, even if our products are incorporated in new products of our customers, our customers' new products may not become viable or commercially accepted or may be subsequently displaced;
- the possibility that a mass market for our commercially accepted products, or for our customers' products which incorporate our products, may not develop;
- restrictions under our agreements with Ballard Power Systems on sales of our fuel cell products to and collaboration with others; and
- failure of our customers to purchase our products in the quantities that we expect.

These risks could be impacted by factors such as adoption of new laws and regulations, changes in governmental programs, failure of necessary supporting systems (such as fuel delivery infrastructure for fuel cells) to be developed, and consumer perceptions about costs, benefits and safety.

**Our financial condition could suffer if we experience unanticipated costs as a result of antitrust investigations and related lawsuits and claims.**

Since 1997, we have been subject to antitrust investigations and related lawsuits and claims. We have recorded pretax charges of \$382 million against results of operations as a reserve for estimated potential liabilities and expenses in connection with antitrust investigations and related lawsuits and claims. Through December 31, 2003, we have paid an aggregate of \$257 million of fines and net settlements and expenses which has been applied against the reserve and \$19 million of imputed interest (which is described below) that has not been applied against the reserve. The balance of the reserve (before giving effect to the provisional payment described below) is available for the \$52.5 million balance of the fine (the **"DOJ antitrust fine"**) payable by us to the U.S. Department of Justice (the **"DOJ"**) that was imposed in 1998, the €50.4 million fine (the **"EU antitrust fine"**) that was assessed against us in 2001 by the Directorate General IV of the European Communities (the **"EU Competition Authority"**) and which we have appealed, and other antitrust related matters.

The DOJ antitrust fine does not bear interest prior to April 2004 and bears interest at the statutory rate (which was 1.28% annually at December 31, 2003) after April 2004. The reserve does not cover interest on the DOJ antitrust fine (including interest that, for accounting purposes, is imputed on the DOJ antitrust fine for the period during which it is non-interest bearing). Such interest is recorded in interest expense on the Consolidated Statements of Operations.

In February 2004, we posted a provisional payment of \$72 million to the EU Competition Authority against the EU antitrust fine. The provisional payment included \$9 million for accrued interest for the period from October 2001 to the date of the provisional payment at the rate of 6.04% per annum. The EU Competition Authority has advised us that its position is that the provisional payment should have included accrued interest at the rate of 8.04% per annum. We have advised the EU Competition Authority that we disagree with its position and will file an interim appeal challenging its position, if necessary.

At December 31, 2003, after giving effect to the provisional payment, \$53 million remained in the reserve. The remaining amount of the reserve is unfunded. We believe that the amount of the EU antitrust fine will be reduced on appeal. To the extent that the actual amount of the EU antitrust fine (after all appeals and including any interest thereon) is less than the amount so provisionally paid, any excess would be refunded to us. To the extent that such actual amount exceeds the amount so provisionally paid, we will be required to make an additional payment equal to such excess. Such additional payment may require us to record an additional charge.

Our insurance has not and will not cover any material liabilities that have or may become due in connection with antitrust investigations, lawsuits or claims.

We cannot assure you that remaining liabilities and expenses in connection with antitrust investigations, lawsuits and claims will not materially exceed the remaining balance of the reserve or that the timing of payment thereof will not be sooner than anticipated. If such liabilities or expenses materially exceed such balance or if the timing of payment thereof is sooner than anticipated, such events could materially adversely affect us, and we may not be able to comply with the financial covenants under the Senior Facilities. In the event of such noncompliance, we could experience the material adverse consequences described, and be forced to take the unfavorable actions referenced, in the risk factor relating to restrictive covenants under the Senior Facilities and Senior Notes on pages 40 through 41.

**We are highly leveraged and our substantial debt and other obligations could limit our financial resources and ability to compete and may make us more vulnerable to adverse economic events.**

We are highly leveraged, and we have substantial obligations in connection with antitrust investigations, lawsuits and claims. At December 31, 2003, after giving effect to the issuance and sale of the Debentures and application of the net proceeds therefrom to repay the remaining \$21 million of term loans outstanding under the Senior Facilities and to make a provisional payment of \$72 million to the EU Competition Authority toward the EU antitrust fine, we had total debt of \$707 million (including unamortized bond premium and fair value of hedged debt obligation), cash and cash equivalents of \$158 million and a stockholders' deficit of \$128 million. In addition, we have historically discounted or factored a substantial portion of our accounts receivable and used the proceeds to reduce our debt. Certain of our subsidiaries sold receivables totaling \$175 million in 2003. If we had not sold such receivables, our accounts receivable and our debt would have been about \$45 million higher at December 31, 2003. We intend to reduce our factoring of accounts receivable and use a portion of the net proceeds from the issuance and sale of the Debentures to replace the financing previously provided thereby. Further, a significant majority of our debt is or has been effectively converted into variable rate debt. We use cash and cash equivalents, funds available under the Revolving Facility and cash flow from operations as our primary sources of liquidity. Availability of funds under the Revolving Facility is subject to continued compliance with the financial covenants under the Senior Facilities. At December 31, 2003, we were in compliance with the financial covenants under the Senior Facilities and had no outstanding balance under the Revolving Facility with \$236 million (after consideration of outstanding letters of credit and at currency exchange rates in effect at December 31, 2003) fully available. We believe that we will have net cash provided by operating activities in 2004 (excluding payments related to restructurings, antitrust fines and the impact of the reduction of factoring of accounts receivables). We expect to make payments of about \$15 million related to restructurings, about \$82 million related to antitrust fines and about \$45 million related to replacement of financing that would have been provided by factoring of accounts receivable. We expect that we will have net cash used in operating activities in 2004 including such exclusions.

Our high leverage and antitrust related obligations could have important consequences, including the following:

- our ability to restructure or refinance our debt or obtain additional debt or equity financing for payment of these obligations, or for working capital, capital

expenditures, acquisitions or other general corporate purposes, may be impaired in the future;

- a substantial portion of our cash flow from operations must be dedicated to debt service and payment of antitrust obligations, thereby reducing the funds available to us for other purposes;
- an increase in interest rates could result in an increase in the portion of our cash flow from operations dedicated to debt service or interest rate management initiatives, in lieu of other purposes;
- we may have substantially more leverage and antitrust obligations than certain of our competitors, which may place us at a competitive disadvantage; and
- our leverage and antitrust obligations may hinder our ability to adjust rapidly to changing market conditions or other events and make us more vulnerable to insolvency, bankruptcy or other adverse consequences in the event of a downturn in general or certain regional economic conditions or in our business or in the event that these obligations are greater, or the timing of payment is sooner, than expected.

**Our ability to service our debt and meet our other obligations depends on certain factors beyond our control.**

Our ability to service our debt and meet our other obligations as they come due is dependent on our future financial and operating performance. This performance is subject to various factors, including factors beyond our control such as changes in global and regional economic conditions, developments in antitrust investigations, lawsuits and claims involving us, changes in our industry or the end markets for our products, changes in interest or currency exchange rates, and inflation in raw materials, energy and other costs.

If our cash flow and capital resources are insufficient to enable us to service our debt and meet these obligations as they become due, we could be forced to: reduce or delay capital expenditures; sell assets or businesses; limit or discontinue, temporarily or permanently, business plans or operations; obtain additional debt or equity financing; or restructure or refinance debt.

We cannot assure you as to the timing of such actions or the amount of proceeds that could be realized from such actions. Accordingly, we cannot assure you that we will be able to meet our debt service and other obligations as they become due or otherwise.

**We are subject to restrictive covenants under the Senior Facilities and the Senior Notes. These covenants could significantly affect the way in which we conduct our business. Our failure to comply with these covenants could lead to an acceleration of our debt.**

The Senior Facilities and the Senior Notes contain a number of covenants that, among other things, significantly restrict our ability to: dispose of assets; incur additional indebtedness; repay or refinance other indebtedness or amend other debt instruments; create liens on assets; enter into leases or sale/leaseback transactions; make investments or acquisitions; engage in mergers or consolidations; make certain payments and investments, including dividend payments

and stock repurchases; make capital expenditures; or engage in certain transactions with subsidiaries and affiliates.

The Senior Facilities also require us to comply with specified financial covenants, including minimum interest coverage and maximum leverage ratios. In addition, pursuant to the Senior Facilities, we cannot borrow under the Revolving Facility:

- if the additional borrowings would cause us to breach the financial covenants; or
- if the aggregate amount of reserves created (plus the aggregate amount of payments made (excluding payments attributable to imputed interest on the DOJ antitrust fine) over or outside of any reserve) in connection with antitrust, securities and stockholder derivative investigations, lawsuits and claims exceed \$415 million, reduced by the principal amount of certain debt (\$1 million of which debt was outstanding at December 31, 2003).

Further, substantially all of our assets are pledged to secure indebtedness as described under “– Risks Relating to Our Securities and Pledges of Our Assets.”

We are currently in compliance with the covenants contained in the Senior Facilities and the Senior Notes. However, our ability to continue to comply may be affected by events beyond our control. The breach of any of the covenants contained in the Senior Facilities, unless waived, would be a default under the Senior Facilities. This would permit the lenders to accelerate the maturity of the Senior Facilities. An acceleration of maturity of the Senior Facilities would permit the holders of the Senior Notes and the Debentures to accelerate the maturity of the Senior Notes and the Debentures, respectively. A breach of the covenants under the Senior Notes, unless waived, would be a default under the Senior Notes. This would also permit the holders of the Senior Notes to accelerate the maturity of the Senior Notes. An acceleration of maturity of the Senior Notes would permit the holders of the Debentures to accelerate the maturity of the Debentures and the lenders to accelerate the maturity of the Senior Facilities. A breach of our obligations under the Debentures, unless waived, would be a default under the Debentures. This would also permit the holders of the Debentures to accelerate the maturity of the Debentures. Acceleration of maturity of the Debentures would permit the holders of the Senior Notes to accelerate the maturity of the Senior Notes and the lenders to accelerate the maturity of the Senior Facilities. An acceleration of maturity of the Senior Facilities would also permit the lenders to terminate their commitments to extend credit under the Revolving Facility. This could have a material adverse effect on our liquidity. If we were unable to repay our debt to the lenders and holders or otherwise obtain a waiver from the lenders and holders, we could be forced to take the actions described in the preceding risk factor and the lenders and holders could proceed against the collateral securing the Senior Facilities and the Senior Notes and exercise all other rights available to them. We cannot assure you that we will have sufficient funds to make these accelerated payments or that we will be able to obtain any such waiver on acceptable terms or at all.

## **We are subject to risks associated with operations in multiple countries.**

A substantial majority of our net sales are derived from sales outside of the U.S., and a substantial majority of our operations and our total property, plant and equipment and other long-lived assets are located outside the U.S. As a result, we are subject to risks associated with operating multiple countries, including:

- currency devaluations and fluctuations in currency exchange rates, including impacts of transactions in various currencies, translation of various currencies into dollars for U.S. reporting and financial covenant compliance purposes, and impacts on results of operations due to the fact that costs of our foreign subsidiaries for our principal raw material, petroleum coke, are incurred in dollars even though their products are primarily sold in other currencies;
- imposition of or increases in customs duties and other tariffs;
- imposition of or increases in currency exchange controls, including imposition of or increases in limitations on conversion of various currencies into dollars or euros, making of intercompany loans by subsidiaries or remittance of dividends, interest or principal payments or other payments by subsidiaries;
- imposition of or increases in revenue, income or earnings taxes and withholding and other taxes on remittances and other payments by subsidiaries;
- imposition of or increases in investment or trade restrictions and other restrictions or requirements by non-U.S. governments;
- inability to definitively determine or satisfy legal requirements, inability to effectively enforce contract or legal rights and inability to obtain complete financial or other information under local legal, judicial, regulatory, disclosure and other systems; and
- nationalization and other risks which could result from a change in government or other political, social or economic instability.

We cannot assure you that such risks will not have a material adverse effect on us in the future.

In general, our results of operations and financial condition are affected by inflation in each country in which we have a manufacturing facility. We maintain operations in Brazil, Russia and Mexico, countries which have had in the past, and may have now or in the future, highly inflationary economies, defined as cumulative inflation of about 100% or more over a three calendar year period. We cannot assure you that future increases in our costs will not exceed the rate of inflation or the amounts, if any, by which we may be able to increase prices for our products.

**Our ability to grow and compete effectively depends on protecting our intellectual property. Failure to protect our intellectual property could adversely affect us.**

We believe that our intellectual property, consisting primarily of patents and proprietary know-how and information, particularly the intellectual property relating to electronic thermal management and fuel cell power generation, is important to our growth. Failure to protect our intellectual property may result in the loss of the exclusive right to use our technologies. We rely on patent, trademark, copyright and trade secret laws and confidentiality and restricted use agreements to protect our intellectual property. Some of our intellectual property is not covered by any patent or patent application or any such agreement.

We own, and have obtained exclusive and non-exclusive licenses to, various domestic and foreign patents related to our technologies. These patents and licenses expire at various times over the next two decades. When such patents and exclusive licenses expire, we will no longer have the right to exclude others from making, using or selling the claimed inventions.

Patents are subject to complex factual and legal considerations. Accordingly, there can be uncertainty as to the validity, scope and enforceability of any particular patent. Therefore, we cannot assure you that:

- any of the U.S. or foreign patents now or hereafter owned by us, or that third parties have licensed to us or may in the future license to us, will not be circumvented, challenged or invalidated;
- any of the U.S. or foreign patents that third parties have non-exclusively licensed to us, or may non-exclusively license to us in the future, will not be licensed to others; or
- any of the patents for which we have applied or may in the future apply will be issued at all or with the breadth of claim coverage sought by us.

We cannot assure you that agreements designed to protect our proprietary know-how and information will not be breached, that we will have adequate remedies for any such breach, or that our strategic alliance partners, consultants, employees or others will not assert rights to intellectual property arising out of our relationships with them.

In addition, effective patent, trademark and trade secret protection may be limited, unavailable or not applied for in the U.S. or in any of the foreign countries in which we operate.

Moreover, we cannot assure you that the use of our patented technology or proprietary know-how or information does not infringe the intellectual property rights of others.

Intellectual property protection does not protect against technological obsolescence due to developments by others or changes in customer needs.

Our ability to establish and maintain our competitive advantage through our technology and any intellectual property rights may be achieved, in part, by prosecuting claims against others whom we believe have misappropriated our technology or have infringed upon our

intellectual property rights, as well as by defending against misappropriation or infringement claims brought by others against us. Our involvement in litigation to protect or defend our rights in these areas could result in a significant expense to us, adversely affect the development of sales of the related products, and divert the efforts of our technical and management personnel, regardless of the outcome of such litigation.

If necessary, we may seek licenses to intellectual property of others. However, we can give no assurance to you that we will be able to obtain such licenses or that the terms of any such licenses will be acceptable to us. Our failure to obtain a license from a third party for its intellectual property that is necessary for us to make or sell any of our products could cause us to incur substantial liabilities and to suspend the manufacture or shipment of products or use of processes requiring the use of such intellectual property.

**Our current and former manufacturing operations are subject to increasingly stringent health, safety and environmental requirements.**

We use and generate hazardous substances in our manufacturing operations. In addition, both the properties on which we currently operate and those on which we have ceased operations are and have been used for industrial purposes. Further, our manufacturing operations involve risks of personal injury or death. We are subject to increasingly stringent environmental, health and safety laws and regulations relating to our current and former properties and neighboring properties and our current operations. These laws and regulations provide for substantial fines and criminal sanctions for violations and sometimes require the installation of costly pollution control or safety equipment or costly changes in operations to limit pollution or decrease the likelihood of injuries. In addition, we may become subject to potentially material liabilities for the investigation and cleanup of contaminated properties and to claims alleging personal injury or property damage resulting from exposure to or releases of hazardous substances or personal injury as a result of an unsafe workplace. Further, noncompliance with or stricter enforcement of existing laws and regulations, adoption of more stringent new laws and regulations, discovery of previously unknown contamination or imposition of new or increased requirements could require us to incur costs or become the basis of new or increased liabilities that could be material.

**We are dependent on supplies of raw materials and energy at affordable prices. Our results of operations could deteriorate if that supply is substantially disrupted for an extended period.**

We purchase raw materials and energy from a variety of sources. In many cases, we purchase them under short term contracts or on the spot market, in each case at fluctuating prices. We purchase a majority of our requirements for petroleum coke, our principal raw material, at variable prices, from multiple plants of a single supplier under a supply agreement that continues through the end of 2006. The availability and price of raw materials and energy may be subject to curtailment or change due to:

- limitations which may be imposed under new legislation or regulation;
- suppliers' allocations to meet demand of other purchasers during periods of shortage (or, in the case of energy suppliers, extended cold weather);



- interruptions in production by suppliers; and
- market and other events and conditions.

Petroleum and coal products, including petroleum coke and pitch, our principal raw materials, and energy, particularly natural gas, have been subject to significant price fluctuations. Over the past several years, we have largely mitigated the effect of price increases on our results of operations primarily through our cost reduction efforts. We cannot assure you that such efforts will successfully mitigate future increases in the price of raw materials or energy. A substantial increase in raw material or energy prices which cannot be mitigated or passed on to customers or a continued interruption in supply, particularly in the supply of petroleum coke or energy, would have a material adverse effect on us.

**Our results of operations could deteriorate if our manufacturing operations were substantially disrupted for an extended period.**

Our manufacturing operations are subject to disruption due to extreme weather conditions, floods and similar events, major industrial accidents, strikes and lockouts, adoption of new laws or regulations, changes in interpretations of existing laws or regulations or changes in governmental enforcement policies, and other events. We cannot assure you that no such events will occur. If such an event occurs, it could have a material adverse effect on us.

**We have significant non-dollar-denominated intercompany loans and significant interest rate swaps and may in the future have significant foreign currency financial instruments. Translation gains and losses due to changes in currency exchange rates or interest rates have in the past resulted and may in the future result in significant gains or losses.**

We have non-dollar-denominated intercompany loans between GrafTech Finance and some of our foreign subsidiaries. At December 31, 2003, the aggregate principal amount of these loans was \$423 million (based on currency exchange rates in effect on December 31, 2003). These loans are subject to translation gains and losses due to changes in currency exchange rates. A portion of these loans are deemed to be essentially permanent and, as a result, translation gains and losses on these loans are recorded in accumulated other comprehensive loss on the Consolidated Balance Sheets. The balance of these loans are deemed to be temporary and, as a result, translation gains and losses on these loans are recorded as unrealized gains or losses in other expense (income), net, on the Consolidated Statements of Operations. We have the ability to replace each intercompany loan with a substantially identical new intercompany loan. When we replace such a loan, we record net cumulative realized translation gains or losses with respect to that loan in other expense (income), net. Those realized gains or losses are, however, non-cash gains or losses. Foreign currency translation gains and losses relating to these loans included in other expense (income), net, were a gain of \$39 million in 2003.

We have interest rate swaps that effectively convert fixed rate debt (represented by the Senior Notes) into variable rate debt in order to seek to minimize interest expense and optimize the risk in our portfolio of fixed and variable interest rate obligations. At December 31, 2003, we had swaps for a notional amount of \$485 million. Our swaps are designated as hedging the exposure to changes in the fair value of the related debt (called a fair value hedge). Our swaps

are marked-to-market monthly, and we are required to provide cash collateral to the counterparty to the extent that the fair value of the derivative exceeds \$15 million, net of market value of our interest rate caps. The fair value of the hedge at the end of a period is recorded on the Consolidated Balance Sheets on the line entitled "fair value of hedged debt obligation." At December 31, 2003, the carrying value of our debt was reduced by \$18 million (excluding the offsetting value of our interest rate caps of \$4 million) as a result of our fair value hedge. The interest rate swap derivative was valued at \$18 million at December 31, 2003 and recorded as part of other long-term obligations on the Consolidated Balance Sheets. When we sell swaps, the gain or loss realized is amortized as a credit or charge to interest expense over the remaining term of the Senior Notes. When we effectively reduce the outstanding principal amount of the Senior Notes (through exchanges or otherwise), the related portion of such credit or charge is accelerated and recorded in the period in which such reduction occurs. In 2003, we realized net proceeds of \$30 million with respect to the sale of swaps, which will be amortized as a credit to interest expense over the remaining term of the Senior Notes.

We have foreign currency financial instruments to attempt to limit our risks associated with changes in currency exchange rates by attempting to hedge existing exposures, firm commitments and, potentially, anticipated transactions. These instruments are marked-to-market monthly. Gains and losses are recorded as unrealized gains or losses in other (income) expense, net, on the Consolidated Statements of Operations. When we sell the instruments, we record net cumulative realized gain or loss with respect to the instruments in other expense (income), net on the Consolidated Statements of Operations. In 2003, we recorded a loss of \$7 million with respect to the instruments held during the course of the year. We had no such contracts outstanding at December 31, 2003.

We may purchase or sell these financial instruments, and open and close hedges or other positions, at any time. We cannot assure you that we will have gains, or will not have losses, of the type described above. Incurrence of material losses, and provision of material cash collateral, could materially adversely affect our ability to comply with the financial covenants under the Senior Facilities.

**Our results of operations for any quarter are not necessarily indicative of our results of operations for a full year.**

Sales of graphite electrodes and other products fluctuate from quarter to quarter due to such factors as changes in economic conditions, changes in competitive conditions, scheduled plant shutdowns by customers, national vacation practices, changes in customer production schedules in response to seasonal changes in energy costs, weather conditions, strikes and work stoppages at customer plants and changes in customer order patterns in response to the announcement of price increases. We have experienced, and expect to continue to experience, volatility with respect to demand for and prices of graphite electrodes and other products, both globally and regionally.

We have also experienced volatility with respect to prices of raw materials and energy, and it has frequently required several quarters of cost reduction efforts to mitigate increases in those prices. We expect to experience volatility in such prices in the future. We have

experienced translation gains and losses in the past, some of which have been significant, and expect to experience translation gains and losses in the future.

Accordingly, results of operations for any quarter are not necessarily indicative of the results of operations for a full year.

**The graphite and carbon industry is highly competitive. Our market share, net sales or net income could decline due to vigorous price and other competition.**

Competition in the graphite and carbon products industry (other than with respect to new products) is based primarily on price, product quality and customer service. Graphite electrodes, in particular, are subject to rigorous price competition. Price increases by us or price reductions by our competitors, decisions by us or our competitors with respect to prices, volumes or profit margins, technological developments, changes in the desirability or necessity of entering into long term supply contracts with customers or other competitive or market factors or strategies could adversely affect our market share, net sales or net income.

Competition with respect to new products is, and is expected to be, based primarily on product innovation, performance and cost effectiveness as well as customer service.

Competition could prevent implementation of price increases, require price reductions or require increased spending on research and development, marketing and sales that could adversely affect us.

**We may not be successful in the lawsuit against our former parents initiated by us.**

In February 2000, we initiated a lawsuit against our former parents. In February 2004, this lawsuit was dismissed. We subsequently appealed the dismissal. Successful prosecution of this lawsuit is subject to many risks and uncertainties, including:

- failure to successfully challenge the dismissal of that lawsuit;
- failure to successfully prove our claims at trial;
- successful assertion by the defendants of substantive defenses, including statute of limitations defenses, to liability at trial or on appeal; and
- successful assertion by the defendants of counterclaims or cross claims, including claims for indemnification, at trial or on appeal.

Litigation such as this lawsuit is complex. Complex litigation can be lengthy and expensive. This lawsuit is in its earliest stages. We cannot predict the ultimate outcome of this lawsuit, including the possibility, timing or amount of any settlement or recovery of damages by us or any liability we may have in connection with any counterclaims or cross claims. In addition, we cannot assure you as to the effect of this lawsuit on management's focus and time available for our ongoing operations.

**We may not be able to complete our planned asset sales.**

We intend to continue to sell real estate, non-strategic businesses and certain other non-strategic assets. We cannot assure you if or when we will be able to complete these sales or that we will realize proceeds therefrom that meet our current expectations.

**We may not achieve the cost savings targeted under our 2002 major cost savings plan.**

We are targeting, under the 2002 plan, cumulative annual recurring pretax cost savings of \$60 million in 2004 and \$80 million in 2005. We recorded an aggregate of \$33 million of restructuring charges and \$48 million of impairment losses on long-lived and other assets and expect to record an additional \$6 million of restructuring charges (primarily for severance associated with further global business and work process changes, but excluding additional restructuring charges that may be recorded relating to the closure of the majority of the graphite electrode manufacturing operations in Italy). These charges include payments through December 31, 2003 of \$8 million of cash costs and expected payments of an additional \$27 million of cash costs. We cannot assure you that the charges and cash costs associated with the 2002 plan will not be higher than anticipated.

Our targeted cost savings are based on assumptions regarding activities undertaken and to be undertaken as part of the 2002 plan. We cannot assure you that these assumptions are correct or that we will be able to implement these activities. If we are unable to implement these activities as and when we have assumed, we may not be able to meet our cost savings targets.

**Risks Relating to our Securities and Pledges of Our Assets**

**The Senior Notes and the related guarantees have limited security, and the Debentures and the related guarantees have no security. As a result, the Debt Securities are effectively subordinated to the Senior Facilities, which are secured by most of our assets, and to certain other secured debt and obligations. This could result in holders of the Debt Securities receiving less on liquidation than the lenders under the Senior Facilities and certain other creditors. In addition, this could result in holders of the Debentures receiving less on liquidation than the holders of the Senior Notes.**

The borrower under the Senior Facilities is GrafTech Finance. The Senior Facilities are guaranteed by all of our domestic subsidiaries, including AET. Substantially all of our assets in the U.S. (except for the unsecured intercompany term note obligations described below) are pledged to secure obligations of GrafTech Finance as borrower under, or guarantees by our domestic subsidiaries of, the Senior Facilities. In addition, UCAR Carbon and our Swiss subsidiary are obligors under intercompany revolving notes that are pledged to secure the Senior Facilities. Substantially all of the assets of our Swiss subsidiary are pledged to secure its intercompany revolving note. The secured intercompany revolving note of our Swiss subsidiary is also guaranteed by our other principal foreign subsidiaries. Those guarantees are secured by a pledge of most of the assets of the foreign subsidiary guarantors. Those guarantees are pledged to secure the Senior Facilities. As a result, most of our assets outside the U.S. are pledged to secure the intercompany revolving note of our Swiss subsidiary and guarantees of that note. Further, our obligation to pay the balance of the DOJ antitrust fine is secured by a lien on all of

the assets of GTI and we have posted a \$72 million provisional payment to the EU Competition Authority to secure payment of the EU antitrust fine pending the outcome of our appeal.

The Senior Notes have been issued by GrafTech Finance, and the Debentures have been issued by GTI. Unsecured intercompany term notes in an aggregate principal amount equal to \$528 million (based on currency exchange rates in effect at December 31, 2003) and unsecured guarantees of those unsecured intercompany term notes by certain of our foreign subsidiaries have been pledged by GrafTech Finance to secure the Senior Notes, subject to the limitation that at no time will the combined value of the pledged portion of any foreign subsidiary's unsecured intercompany term note and unsecured guarantee of unsecured intercompany term notes issued by other foreign subsidiaries exceed 19.99% of the principal amount of the then outstanding Senior Notes. As a result of this limitation, at December 31, 2003, the aggregate principal amount of unsecured intercompany term notes pledged to secure the Senior Notes equaled \$366 million (based on currency exchange rates in effect at December 31, 2003), or about 74% of the aggregate principal amount of the then outstanding Senior Notes. The remaining unsecured intercompany term notes held by GrafTech Finance is about 31% of the aggregate principal amount of the unsecured intercompany term notes or \$162 million (based on currency exchange rates in effect at December 31, 2003), and any pledged unsecured intercompany term notes that cease to be pledged due to a reduction in the principal amount of the then outstanding Senior Notes due to redemption, repurchase or other events, will not be subject to any pledge and will be available to satisfy the claims of creditors (including the lenders under the Senior Facilities, the holders of the Senior Notes and, pursuant to the guarantee by GrafTech Finance of the Debentures, the holders of the Debentures) of GrafTech Finance, as their interests may appear. The Senior Notes contain provisions restricting the pledge of those unsecured intercompany term notes to secure any debt or obligation. The foreign subsidiaries who are obligors under any of such unsecured intercompany term notes or the related guarantees are called **"unsecured intercompany term note obligors"** and their obligations thereunder are called **"unsecured intercompany term note obligations."**

The guarantees of the unsecured intercompany term notes by foreign subsidiaries that are pledged to secure the Senior Notes are limited as required to comply with applicable law. Many of these laws effectively limit the amount of the guarantee to the net worth of the foreign subsidiary guarantor.

Neither the Senior Notes nor the Debentures contain limitations on new secured intercompany term or revolving loans under the Senior Facilities to, or intercompany guarantees of such intercompany loans by, foreign subsidiaries, including foreign subsidiaries that are unsecured intercompany term note obligors.

The Senior Notes are guaranteed by GTI, UCAR Carbon and other U.S. subsidiaries that collectively hold a substantial majority of our U.S. operating assets. The Debentures are guaranteed by GrafTech Finance, UCAR Carbon and other U.S. subsidiaries that collectively hold a substantial majority of our U.S. operating assets. Except for a subsidiary that is being dissolved and liquidated, the obligors (including the guarantors) under the Senior Notes and the Debentures are the same. The guarantees of the Senior Notes and the Debentures are unsecured, except the guarantee of the Senior Notes by UCAR Carbon. Each of the obligors (including guarantors) under the Senior Notes and the Debentures is also an obligor (including a guarantor)

under the Senior Facilities, and those obligations are secured. AET has guaranteed the Senior Facilities, but has not guaranteed the Senior Notes or the Debentures. The guarantee of the Senior Facilities by AET is secured. The guarantee of the Senior Notes by UCAR Carbon is secured by a pledge of all of the shares of capital stock (constituting 97.5% of the outstanding shares of capital stock) of AET held by UCAR Carbon (called the “AET Pledged Stock”). While all of the AET Pledged Stock is pledged to secure the UCAR Carbon guarantee of the Senior Notes, at no time will the value of the pledged portion of the AET Pledged Stock exceed 19.99% of the principal amount of the then outstanding Senior Notes. Moreover, the pledge of the AET Pledged Stock is junior to the pledge of the same shares to secure the UCAR Carbon guarantee of the Senior Facilities.

None of our foreign subsidiaries has guaranteed the Senior Facilities, the Senior Notes or the Debentures.

The lenders and creditors whose debt and obligations are secured will have prior claims on our assets, to the extent of the lesser of the value of the assets securing, or the amount of, the respective debt or obligations. If we become bankrupt or insolvent or are liquidated or if maturity of such debt or obligations is accelerated, the secured lenders and creditors will be entitled to exercise the remedies available to a secured party under applicable law and pursuant to the relevant agreements and instruments, including the ability to foreclose on and sell the assets securing such debt or obligations to satisfy such debt or obligations. If they exercise such remedies, it is possible that our remaining assets could be insufficient to repay in full the debts and obligations to creditors whose debt and obligations are unsecured, including holders of the Debentures and, to the extent that the Senior Notes are not repaid in full upon exercise of the remedies available to holders thereof as secured parties under applicable law and pursuant to the relevant agreement and instruments, the holders of the Senior Notes.

**We have a holding company structure. The issuer of the Senior Notes is a special purpose finance company. The issuer of the Debentures is our parent holding company. Accordingly, the Senior Notes and the Debentures are structurally subordinated to certain of our obligations.**

GTI, the issuer of the Debentures, is our parent company. It is a holding company with no operations, limited assets (all of which are pledged to secure the Senior Facilities and the DOJ antitrust fine) and substantial debt, liabilities and obligations.

GrafTech Finance, the issuer of the Senior Notes, is a special purpose finance company with limited operations, limited assets (a substantial majority of which are pledged to secure the Senior Facilities and the Senior Notes) and substantial debt.

A substantial portion of our operations is conducted by, and a substantial portion of our cash flow from operations is derived from, our foreign subsidiaries. The foreign subsidiaries that have issued unsecured intercompany term notes that are pledged to secure the Senior Notes are our operating subsidiaries in Mexico, France, South Africa and Switzerland and our holding company in France. The obligations of the holding company in France in respect of its unsecured intercompany term note are guaranteed, on an unsecured basis, by our operating company in France engaged in the graphite electrode business. The unsecured intercompany

term notes are guaranteed, on an unsecured basis, by our operating subsidiaries in Brazil, Canada, Mexico, Spain, Switzerland and the United Kingdom and the holding company in France. These subsidiaries have also guaranteed, on a secured basis, the secured intercompany revolving note of our Swiss subsidiary that is pledged to secure the Senior Facilities.

Our operating subsidiary in Italy engaged in the advanced graphite materials business, our operating subsidiary in Russia and Carbone Savoie, AET and certain immaterial domestic and foreign operating and holding companies are neither guarantors of the secured intercompany revolving note of our Swiss subsidiary, nor guarantors of the Senior Notes or the unsecured intercompany term notes, nor guarantors of the Debentures. At December 31, 2003, the aggregate combined book value of their assets was about \$189 million. For 2003, their aggregate combined net loss was about \$8 million and their aggregate combined net use of cash from operations was about \$10 million (excluding the impact of payments and borrowings under a short-term unsecured intercompany cash flow note issued by Carbone Savoie).

GrafTech Finance has made and may continue to make intercompany revolving loans to our Swiss subsidiary and UCAR Carbon. At December 31, 2003 (based on currency exchange rates in effect on December 31, 2003), the aggregate principal amount of the secured intercompany revolving loan to our Swiss subsidiary was nil. GTI, GrafTech Finance and our other domestic subsidiaries may make intercompany term and revolving loans to one or more other domestic or foreign subsidiaries. To the extent that these loans are made under the Senior Facilities, any of these loans made to foreign subsidiaries may be secured, and guaranteed on a secured basis, by other foreign subsidiaries. Neither the Senior Notes nor the Debentures contain limitations on existing or new secured intercompany revolving loans pursuant to the Senior Facilities to domestic or foreign subsidiaries that are guarantors of the Senior Notes or unsecured intercompany term note obligors.

GTI relies upon interest and principal payments on intercompany loans, as well as dividends, loans and advances from our subsidiaries, to generate the funds necessary to meet its debt service obligations with respect to the Debentures. GrafTech Finance relies upon interest and principal payments on intercompany loans, as well as loans, advances and contributions from GTI and our other subsidiaries, to generate the funds necessary to meet its debt service obligations with respect to the Senior Facilities and the Senior Notes. GTI and our subsidiaries are separate entities that are legally distinct from each other. Our subsidiaries that are neither guarantors of the Senior Notes nor unsecured intercompany term note obligors have no obligation, contingent or otherwise, to pay debt service on the Senior Notes or to make funds available for such payments. Our subsidiaries that are not guarantors of the Debentures have no obligation, contingent or otherwise, to pay debt service on the Debentures or to make funds available for such payments. The ability of GTI and our subsidiaries to make these payments, loans, advances or contributions is subject to, among other things and to the extent applicable, their earnings and cash flows, their need for funds for business purposes, the covenants of their other debts, guarantees and obligations, and restrictions on dividends, distributions or repatriation of earnings under applicable corporate laws and foreign currency exchange regulations.

The ability of the holders of the Senior Notes or the Debentures to realize upon the assets of any subsidiary that is neither a guarantor of the Senior Notes or the Debentures, respectively,

nor, in the case of the Senior Notes only, an unsecured intercompany term note obligor in any liquidation, bankruptcy, insolvency or similar proceedings involving such subsidiary will be subject to the claims of their respective creditors, including their respective trade creditors, holders of their respective debt and their respective preferred stockholders.

As a result, the Senior Notes and the Debentures are structurally subordinated to all existing and future debt and other obligations, including trade payables and obligations to preferred stockholders, of our subsidiaries that are neither guarantors of the Senior Notes or the Debentures, respectively, nor, in the case of the Senior Notes only, unsecured intercompany term note obligors, and the ability of the issuers and guarantors of the Senior Notes and the Debentures to receive (and therefore the ability of the holders of the Senior Notes and the Debentures to participate in) the assets of any subsidiary upon liquidation, bankruptcy, insolvency or similar proceedings involving any such subsidiary will be subject to the claims of the holders of such debt and other obligations, including trade creditors and preferred stockholders. In addition, to the extent that the issuers and guarantors of the Senior Notes and the Debentures are creditors of any such subsidiary, whether as trade creditors, creditors under the unsecured intercompany term notes or otherwise, their rights as a creditor could be equitably subordinated to such claims. At December 31, 2003, the debt and liabilities of such subsidiaries totaled \$78 million (excluding intercompany trade and other miscellaneous liabilities of \$20 million).

Except as otherwise specifically stated, the financial information included in this Report is presented on a consolidated basis, including both our domestic and foreign subsidiaries. As a result, such financial information does not completely indicate the assets, liabilities or operations of each source of funds for payment of debt service on the Senior Notes or the Debentures.

**The provisions of the unsecured intercompany term note obligations can be changed, and the unsecured intercompany term notes can be prepaid in whole or in part, without the consent of the holders of the Senior Notes under certain circumstances. Prepayment would increase the structural subordination of the Senior Notes. Prepayment or changes in such provisions could reduce or eliminate the ability of holders of the Senior Notes to seek recovery directly from our foreign subsidiaries upon a default under the Senior Notes.**

In general, the unsecured intercompany term notes and the unsecured intercompany term note guarantees cannot be changed, and the unsecured intercompany term notes cannot be prepaid or otherwise discharged, without the consent of the holders of the Senior Notes. However, without the consent of the holders of the Senior Notes:

- the interest rate, interest payment dates, currency of payment of principal and interest and currency in which an unsecured intercompany term note is denominated (subject to certain limitations) can be amended;
- provisions of an unsecured intercompany term note obligation can be amended to comply with changes in applicable law, so long as such amendments do not change the enforceability, principal amount, stated maturity, average life, ranking or priority or prepayment provisions of an unsecured intercompany term note or the



enforceability of or obligations guaranteed under an unsecured intercompany term note guaranty; and

- an unsecured intercompany term note can be prepaid in whole or in part if the proceeds received by GrafTech Finance from such prepayment are (i) invested in or loaned to a guarantor of the Senior Notes, (ii) loaned to another foreign subsidiary pursuant to an unsecured intercompany note that is pledged to secure the Senior Notes and is, to the extent permitted by applicable law, guaranteed by the unsecured intercompany term note guarantors or (iii) applied to an offer to purchase Senior Notes at a purchase price equal to 100% of the principal amount of the Senior Notes, plus accrued and unpaid interest.

The principal amount (expressed in dollars) of any unsecured intercompany term note that is not denominated in dollars could increase or decrease at any time due to changes in currency exchange rates.

A reduction in the principal amount of one or more unsecured intercompany notes could increase the structural subordination of the Senior Notes, as described in the preceding risk factors, and reduce the ability of holders of the Senior Notes to realize upon the assets of our foreign subsidiaries upon a default under the Senior Notes. A change in the provisions of the unsecured intercompany note obligations could also limit such ability.

**In the event of the bankruptcy or insolvency of any of the subsidiary guarantors of the Senior Notes or the unsecured intercompany term note obligors, the guarantee of the Senior Notes by such guarantor or the unsecured intercompany term note and the unsecured intercompany term note guarantee of such obligor could be voided or subordinated. In the event of the bankruptcy or insolvency of any of the subsidiary guarantors of the Debentures, the guarantee of the Debentures by such guarantor could be voided or subordinated.**

In the event of the bankruptcy or insolvency of any of the subsidiary guarantors of the Senior Notes or the Debentures or any of the unsecured intercompany term note obligors, its guarantee, unsecured intercompany term note guarantee or unsecured intercompany term note would be subject to review under relevant fraudulent conveyance, fraudulent transfer, equitable subordination and similar statutes and doctrines in a bankruptcy or insolvency proceeding or a lawsuit by or on behalf of creditors of that guarantor or obligor. Under those statutes and doctrines, if a court were to find that the guarantee or note was incurred with the intent of hindering, delaying or defrauding creditors or that the guarantor or obligor received less than a reasonably equivalent value or fair consideration for its guarantee or note and, at the time of its incurrence, the guarantor or obligor:

- was insolvent or rendered insolvent by reason of the incurrence of its guarantee or note; or
- was engaged in a business or transaction for which its remaining unencumbered assets constituted unreasonably small capital to carry on its business; or

- intended to, or believed that it would, incur debts beyond its ability to pay as they matured or became due;

then the court could void or subordinate its guarantee or note.

The measure of insolvency varies depending upon the law of the jurisdiction being applied. Generally, however, a company will be considered insolvent at a particular time if the sum of its debts at that time is greater than the then fair saleable value of its assets or if the fair saleable value of its assets at the time is less than the amount that would be required to pay its probable liability on its existing debts as they become absolute and mature. We believe that each of the guarantors and obligors was:

- neither insolvent nor rendered insolvent by reason of the incurrence of its guarantee or note;
- in possession of sufficient capital to run its business effectively; and
- incurring debts within its ability to pay as the same mature or become due.

The assumptions and methodologies used by us in reaching these conclusions about solvency may not be adopted by a court, and a court may not concur with these conclusions. If the guarantee of a guarantor or the unsecured intercompany term note guarantee or unsecured intercompany term note of an unsecured intercompany term note obligor is voided or subordinated, holders of the Senior Notes, holders of the Debentures or both would effectively be subordinated to all indebtedness and other liabilities of that guarantor or, in the case of holders of the Senior Notes, all indebtedness and other liabilities of that obligor.

The unsecured intercompany term note obligors are incorporated in jurisdictions other than the U.S. and are subject to the bankruptcy and insolvency laws of such other jurisdictions. We cannot assure you that the bankruptcy and insolvency laws of such jurisdictions will be as favorable, to the interests of the holders of the Debt Securities as creditors, as the laws of the U.S.

**We may not have the ability to purchase the Senior Notes upon a change of control as required by the Senior Notes. We may not have the ability to purchase the Debentures upon a fundamental change or upon specified dates as required by the Debentures.**

Upon the occurrence of certain change of control events, we will be required to offer to purchase the outstanding Senior Notes at a purchase price equal to 101% of the principal amount, plus accrued and unpaid interest. Upon the occurrence of certain fundamental change events, we will be required to offer to purchase the outstanding Debentures at a purchase price equal to 100% of the principal amount, plus accrued and unpaid interest (including liquidated damages). These events are the same under the Senior Notes and the Debentures, except that, in the case of the Debentures, these events also include the failure of the capital stock (or certain equivalents) into which they are convertible to be listed on a U.S. securities exchange or market and no offer to purchase is required to be made if certain trading price or transaction consideration thresholds are met. In addition, on January 15, 2011, January 15, 2014 and January 15, 2019, at the option

of a holder of Debentures, such holder may require us to purchase some or all of its Debentures at the same purchase price.

If such an event (including the exercise of such option) were to occur, we cannot assure you that we would have sufficient funds to pay the purchase price, and we expect that we would require third party financing to do so. We cannot assure you that we would be able to obtain this financing on favorable terms or at all. Upon the occurrence of certain of these events, we may be required to repay all borrowings under the Senior Facilities or obtain the consent of the lenders under the Senior Facilities to purchase the Senior Notes and the Debentures. If we do not obtain such consent or repay such borrowings, we may be prohibited from purchasing the Senior Notes and the Debentures. In such case, our failure to purchase tendered Senior Notes or Debentures would constitute a default under the Senior Notes or the Debentures, respectively. If the holders of the Senior Notes or the Debentures were to accelerate the maturity of the Senior Notes or the Debentures, respectively, upon such default, the lenders under the Senior Facilities would have the right to accelerate the maturity of the Senior Facilities. We cannot assure you that we will have the financial ability to purchase outstanding Senior Notes and Debentures and repay such borrowings upon the occurrence of any such event.

**The Senior Notes, the Debentures and the respective related guarantees rank equally with each other and certain of our other debt and liabilities.**

The Senior Notes and the related guarantees, and the Debentures and the related guarantees, are general senior obligations of the respective issuers and guarantors. Payments in respect thereof rank equally with each other and with payments in respect of all other present or future senior indebtedness of such issuers and guarantors, respectively (including the secured obligations under or guarantees of the Senior Facilities and, in the case of GTI as issuer or guarantor, the secured EU antitrust fine and the secured DOJ antitrust fine), and senior to all present or future subordinated obligations of such issuers and guarantors, respectively. Such payments are effectively subordinated to all present or future secured indebtedness and obligations, to the extent of the value of the assets securing such indebtedness and obligations, as described above. We currently have no subordinated indebtedness.

GTI and GrafTech Finance may from time to time incur additional debt, including senior indebtedness and secured indebtedness. Our other subsidiaries may from time to time incur additional debt, including senior indebtedness and secured indebtedness, as well as other liabilities. Such additional debt may include indebtedness of subsidiaries that are guarantors of the Senior Notes or the Debentures to subsidiaries that are not guarantors of the Senior Notes or the Debentures, subject to certain limitations under the Senior Facilities (but not under the Senior Notes or the Debentures). GTI and our subsidiaries are subject to certain limitations on incurrence of debt under the Senior Facilities and the Senior Notes (but not under the Debentures).

As a result of such ranking, holders of the Senior Notes and the Debentures may receive less upon liquidation, bankruptcy, insolvency or similar proceedings than they would have received if they had a more senior or secured ranking.

**The value of the conversion right associated with the Debentures may be substantially lessened or eliminated if we are party to a merger, consolidation or other similar transaction.**

If we are party to a merger, consolidation, binding share exchange, sale, transfer or lease of all or substantially all of our assets or similar transaction pursuant to which our common stock is converted into, or into the right to receive, cash, securities or other property, then, at the effective time of the transaction, the right to convert a Debenture into our common stock will be changed into a right to convert it into the kind and amount of cash, securities or other property which the holder would have received if the holder had converted its Debenture immediately prior to the transaction. This change could substantially lessen or eliminate the value of the conversion right associated with the Debentures. For example, if we were acquired in a cash merger, each Debenture would become convertible solely into cash and would no longer be convertible into securities whose value would vary depending on future prospects and other factors.

**The conditional conversion feature of the Debentures could result in a holder receiving less than the value of the common stock into which a Debenture is convertible.**

The Debentures are convertible into our common stock only if specified conditions are met. If these conditions are not met, a holder will not be able to convert its Debentures, and a holder may not be able to receive the value of our common stock into which its Debentures would otherwise be convertible.

**A holder of Debentures is not entitled to any rights with respect to our common stock, but will be subject to all changes made with respect to our common stock.**

Holders of Debentures are not entitled to any rights with respect to our common stock (including voting rights and rights to receive dividends or other distributions), but will be subject to all changes affecting our common stock. A holder will have rights with respect to our common stock only if and when we deliver shares of our common stock to such holder upon conversion of its Debentures and, to a limited extent, by virtue of the conversion rate adjustments applicable to the Debentures. For example, if an amendment is proposed to GTI's Amended and Restated Certificate of Incorporation or Amended and Restated By-Laws requiring stockholder approval and the record date for determining the stockholders of record entitled to vote on the amendment occurs prior to the delivery of shares of our common stock to a holder upon conversion of its Debenture, such holder will not be entitled to vote on the amendment, although such holder will nevertheless be subject to any changes in the powers, preferences or rights pertaining to our common stock affected by the amendment.

**The Debenture Indenture contains only limited covenants, which may not protect a holder's investment if we experience significant adverse changes or engage in a highly leveraged transaction such as a leveraged recapitalization.**

The Debenture Indenture does not:

- require us to maintain any financial ratios or specified levels of net worth, revenues, income, cash flow or liquidity and, therefore, does not protect holders of the Debentures in the event that we experience significant adverse changes in our financial condition or performance;
- limit our ability to incur additional indebtedness, including indebtedness that is equal in right of payment to the Debentures;
- restrict our ability to pledge our assets;
- restrict our ability to pay dividends or make other payments in respect of our common stock or other securities ranking junior to the Debentures;
- restrict our ability to make investments; or
- restrict our ability to issue new securities.

Such events may, however, result in an adjustment to the conversion rate applicable to the Debentures.

**Adjustments to the conversion rate applicable to the Debentures may result in a taxable distribution to a holder of Debentures.**

The conversion rate applicable to the Debentures will be adjusted if we distribute cash with respect to our common stock and in certain other circumstances. Under Section 305(c) of the Internal Revenue Code, an increase in the conversion rate as a result of our distribution of cash to common stockholders generally will result in a deemed distribution to a holder of Debentures. Other adjustments in the conversion rate (or failures to make such adjustments) that have the effect of increasing a holder's proportionate interest in our assets or earnings may have the same result. Any deemed distribution to a holder will be taxable as a dividend to the extent of our current or accumulated earnings and profits.

**Conversion or repurchase of Debentures into or with our common stock will dilute the ownership interests of other stockholders. In addition, to the extent that outstanding options to purchase shares of our common stock are exercised, there will be further dilution.**

**Our stock price may be volatile due to the nature of our business as well as the nature of the securities markets, which could affect the short-term value of an investment in our common stock, the Debentures or the Senior Notes.**

Many factors may cause the market price for our common stock to decline or fluctuate, perhaps substantially, including:

- failure of net sales, results of operations or cash flows from operations to meet the expectations of securities analysts or investors;
- downward revisions in revenue, earnings or cash flow estimates of securities analysts;
- downward revisions or announcements that indicate possible downward revisions in the ratings on the Senior Notes or the Debentures;
- speculation in the press or investor perception concerning our industry or our prospects; and
- changes in general capital market conditions.

The stock markets in general have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the market price of our common stock.

In the past, companies that have experienced volatility in the market price of their stock have been the subject of securities class action litigation. We could be involved in a securities class action litigation in the future. Such litigation could result in substantial costs and a diversion of management's attention and resources.

### **Forward Looking Statements**

This Report contains forward looking statements. In addition, we or our representatives have made or may make forward looking statements on telephone or conference calls, by webcasts or emails, in person, in presentations or written materials, or otherwise. These include statements about such matters as: future production and sales of steel, aluminum, electronic devices, fuel cells and other products that incorporate our products or that are produced using our products; future prices and sales of and demand for such products; future operational and financial performance of our businesses; strategic plans; impacts of regional and global economic conditions; interest rate management activities; rationalization, restructuring, realignment, strategic alliance, raw material and supply chain, technology development and collaboration, investment, acquisition, joint venture, operational, tax, financial and capital projects; legal matters; consulting projects; potential offerings, sales and other actions regarding debt or equity securities of us or our subsidiaries; and future costs, working capital, revenues, business opportunities, values, debt levels, cash flows, cost savings and reductions, margins, earnings and growth. The words "will," "may," "plan," "estimate," "project," "believe," "anticipate," "expect," "intend," "should," "would," "could," "target," "goal" and similar expressions identify some of these statements.

Actual future events and circumstances (including future results and trends) could differ materially from those set forth in these statements due to various factors. These factors include:

- the possibility that global or regional economic conditions affecting our products may not improve or may worsen due to geopolitical events, governmental actions or other factors;
- the possibility that additions to capacity for producing steel in electric arc furnaces may not occur, that reductions in graphite electrode manufacturing capacity may not continue or that increases in graphite electrode manufacturing capacity may occur;
- the possibility that increases in production of steel in electric arc furnaces or reductions in graphite electrode manufacturing capacity may not result in stable or increased demand for or prices or sales volume of graphite electrodes;
- the possibility that economic or technological developments may adversely affect growth in the use of graphite cathodes in lieu of carbon cathodes in the aluminum smelting process;
- the possibility that additions to aluminum smelting capacity using graphite cathodes may not occur or that increases in production of graphite cathodes by competitors may occur;
- the possibility that increases in production of aluminum or stable production of graphite cathodes by competitors may not result in stable or increased demand for or prices or sales volume of graphite cathodes;
- the possibility that actual graphite electrode prices in the future may be different than current spot prices due to changes in product mix, changes in currency exchange rates, changes in competitive market conditions or other factors;
- the possibility of delays in or failure to achieve successful development and commercialization of new or improved electronic thermal management or other products;
- the possibility of delays in or failure to achieve widespread commercialization of PEM fuel cells which use our products or that manufacturers of PEM fuel cells may obtain those products from other sources;
- the possibility that end markets for our products (other than those mentioned above) may not improve or may worsen;
- the possibility of delays in meeting or failure to meet contractually specified or other product development milestones or delays in expanding or failure to expand our manufacturing capacity to meet growth in demand for existing, new or improved products, if any;
- the possibility that we may be unable to protect our intellectual property or may infringe the intellectual property rights of others;

- the occurrence of unanticipated events or circumstances relating to antitrust investigations, lawsuits or claims or to the lawsuit initiated by us against our former parents;
- the possibility that expected cost savings from our 2002 major cost savings plan or our other cost savings efforts will not be fully realized;
- the possibility that the anticipated benefits from the corporate realignment of our subsidiaries or the refinement of our organizational structure into three lines of business may be delayed or may not occur;
- the possibility that our provision for income taxes and effective income tax rate (as distinguished from our tax payments) may fluctuate significantly based on changes in financial performance of subsidiaries in various countries, changes in estimates of future ability to use foreign tax credits, changes in tax laws and other factors;
- the occurrence of unanticipated events or circumstances relating to health, safety or environmental compliance or remediation obligations or liabilities to third parties, labor relations, or raw material or energy supplies or cost;
- changes in interest rates, in currency exchange rates (including those impacting our euro-denominated antitrust liabilities or non-dollar denominated intercompany loans), in competitive conditions or in inflation affecting our raw material, energy or other costs;
- the possibility of failure to satisfy conditions or milestones under, or occurrence of breach of terms of, our strategic alliances with Pechiney, Ballard Power Systems or others;
- the possibility of changes in appropriation or non-appropriation of government funds for, or our failure to satisfy eligibility conditions to, government grants awarded to us;
- the possibility that changes in financial performance may affect our compliance with financial covenants or the amount of funds available for borrowing under the Senior Facilities;
- the possibility that we may not complete planned asset sales for amounts or at times anticipated or at all or that we may not achieve the earnings estimates that we provide as guidance from time to time; and
- other risks and uncertainties, including those described elsewhere in this Report or our other SEC filings, as well as future decisions by us.

Occurrence of any of the events or circumstances described above could also have a material adverse effect on our business, financial condition, results of operations or cash flows.



No assurance can be given that any future transaction about which forward looking statements may be made will be completed or as to the timing or terms of any such transaction.

All subsequent written and oral forward-looking statements by or attributable to us or persons acting on our behalf are expressly qualified in their entirety by these factors. Except as otherwise required to be disclosed in periodic reports required to be filed by public companies with the SEC pursuant to the SEC's rules, we have no duty to update these statements.

## Item 2. Properties

We operate the following facilities, which are owned or leased as indicated.

<u>Location of Facility</u>	<u>Primary Use</u>	<u>Owned or Leased</u>
<i>U.S.</i>		
Wilmington, Delaware	Corporate Headquarters	Leased
Lakewood, Ohio	Flexible Graphite Manufacturing Facility and Sales Office	Owned
Parma, Ohio	Technology Center, Testing Facility, Pilot Plant and Advanced Flexible Graphite Manufacturing Facility	Owned
Clarksville, Tennessee	Sales Office, Shared Service Center and Machine Shop	Leased
Columbia, Tennessee	Carbon Electrode Manufacturing Facility and Sales Office	Owned
Lawrenceburg, Tennessee	Advanced Carbon Materials Manufacturing Facility	Owned
Clarksburg, West Virginia	Advanced Synthetic Graphite Manufacturing Facility and Sales Office	Owned
<i>Europe</i>		
Calais, France	Graphite Electrode Manufacturing Facility	Owned
Notre Dame, France	Graphite Electrode, Advanced Synthetic Graphite and Cathode Manufacturing Facility and Sales Office	Owned
Vénissieux, France	Cathode Manufacturing Facility and Technology Center	Owned
Caserta, Italy	Machine Shop	Owned
Malonno, Italy	Machine Shop and Sales Office	Owned
Saronno, Italy	Sales Office	Leased
Moscow, Russia	Sales Office	Leased
Vyazma, Russia	Graphite Electrode Manufacturing Facility	Owned
Pamplona, Spain	Graphite Electrode Manufacturing Facility and Sales Office	Owned
Etoy, Switzerland	Sales Office and European Headquarters	Owned
Sheffield, United Kingdom	Machine Shop and Sales Office	Owned
<i>Other International</i>		
Salvador Bahia, Brazil	Graphite Electrode and Cathode Manufacturing Facility	Owned
Sao Paulo, Brazil	Sales Office	Leased
Beijing, China	Sales Office	Leased
Hong Kong, China	Sales Office	Leased
Monterrey, Mexico	Graphite Electrode Manufacturing Facility and Sales Office	Owned
Meyerton, South Africa	Graphite Electrode Manufacturing Facility and Sales Office	Owned

We believe that our facilities, which are of varying ages and types of construction, are in good condition, are suitable for our operations and generally provide sufficient capacity to meet our requirements for the foreseeable future.

**Item 3. Legal Proceedings**

The information required by Item 3 is set forth under "Contingencies" in Note 14 to the Consolidated Financial Statements and under "Subsequent Events" in Note 19 to the Consolidated Financial Statements, and is incorporated herein by reference. Such description contains all of the information required with respect thereto.

**Item 4. Submission of Matters to a Vote of Security Holders**

None.

## PART II

### Item 5. Market for Registrant's Common Equity and Related Stockholder Matters

#### Market Information

Our common stock is listed on the NYSE under the trading symbol "GTI." The closing sale price of our common stock was \$13.50 on December 31, 2003, the last trading day of our last fiscal year. The following table sets forth, for the periods indicated, the high and low closing sales price per share for our common stock as reported by the NYSE.

	<u>High</u>	<u>Low</u>
2002		
First Quarter .....	\$ 14.30	\$ 9.80
Second Quarter.....	14.05	11.00
Third Quarter.....	11.85	7.05
Fourth Quarter.....	7.60	3.82
2003		
First Quarter .....	5.89	2.57
Second Quarter.....	6.30	2.39
Third Quarter.....	8.94	5.50
Fourth Quarter.....	13.82	8.23

At February 27, 2004, there were 109 record holders of common stock. We estimate that there were about 8,300 stockholders represented by nominees.

Our common stock is included in the Russell 2000 Index.

A description of GTI's Stockholder Rights Plan is set forth under "Stockholder Rights Plan" in Note 16 to the Consolidated Financial Statements contained in this Report, and such description is incorporated herein by reference. Such description contains all of the information required with respect thereto.

#### Dividend Policies and Restrictions

It is the current policy of GTI's Board of Directors to retain earnings to finance strategic and other plans and programs, conduct business operations, fund acquisitions, meet obligations and repay debt. Any declaration and payment of cash dividends or repurchases of common stock will be subject to the discretion of GTI's Board of Directors and will be dependent upon our financial condition, results of operations, cash requirements and future prospects, the limitations contained in the Senior Facilities and the Senior Notes and other factors deemed relevant by GTI's Board of Directors. We do not anticipate paying cash dividends in the foreseeable future.

GTI is a holding company that derives substantially all of its cash flow from GrafTech Global and GrafTech Finance. GTI's ability to pay dividends or repurchase common stock from earnings or cash flow from operating or investing activities is dependent upon the earnings and cash flow from operating or investing activities of GrafTech Global and its subsidiaries and the distribution of those earnings and cash flows by GrafTech Global to GTI.

Under the Senior Facilities, GTI is permitted to pay dividends on common stock and repurchase common stock only in an annual aggregate amount of \$25 million, plus up to an additional \$25 million if certain leverage ratio and excess cash flow requirements are satisfied. We are also permitted to repurchase common stock from present or former directors, officers or employees in an aggregate amount of up to the lesser of \$5 million per year (with unused amounts permitted to be carried forward) or \$25 million on a cumulative basis since February 22, 2000. In addition, GrafTech Global is permitted to pay dividends to GTI for those purposes and also in respect of GTI's administrative fees and expenses and to fund payments in connection with antitrust, securities and stockholder derivative investigations, lawsuits and claims. The total amount of dividends to fund those payments (in each case, excluding certain imputed interest), plus the total amount paid on intercompany debt owed to GTI for the same purpose (in each case, excluding certain imputed interest), plus the amount of additional reserves created with respect to these investigations, lawsuits and claims may not exceed \$340 million by more than the difference between \$75 million (or \$33 million, after giving effect to the \$10 million charge relating to the EU antitrust fine recorded in July 2001 and the \$32 million charge recorded in the 2003 fourth quarter) and the principal amount of certain other debt (\$1 million of which debt was outstanding at December 31, 2003).

Under the Senior Notes, GTI is permitted to pay dividends on common stock and repurchase common stock only in a cumulative (from February 15, 2002) amount of \$25 million (subject to reduction if we make other restricted payments), plus, if certain leverage ratio requirements are satisfied, an amount of up to the sum of 50% of certain cumulative (from April 1, 2002) consolidated net income, 100% of net cash proceeds from certain sales of common stock (subsequent to February 15, 2002) and certain investment returns. We are also permitted to repurchase common stock from present or former directors, officers or employees of up to the lesser of \$5 million annually or \$10 million on a cumulative basis from February 15, 2002. GrafTech Global is permitted to pay dividends to GTI for those and other purposes.

The Debentures do not restrict the payment of dividends or repurchase of our common stock, but such payment or repurchase may result in an adjustment to the conversion rate applicable to the Debentures.

## Equity Compensation Plan Information

The following table sets forth certain information relating to the shares of our common stock that may be issued under our equity compensation plans at December 31, 2003.

Plan Category	A	B	C
	Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column A)
Equity compensation plans approved by stockholders <sup>(1)</sup>	6,048,993	\$12.82	538,733
Equity compensation plans not approved by stockholders <sup>(2)</sup>	5,460,994	\$13.21	910,304
Total	11,509,987	\$13.00	1,449,037 <sup>(3)</sup>

- (1) Includes the Management Stock Incentive Plan (Original Version), the 1995 Equity Incentive Plan and the Management Stock Incentive Plan (Senior Version).
- (2) Includes the Management Stock Incentive Plan (Mid-Management Version) and the 1996 Mid-Management Equity Incentive Plan.
- (3) Of these shares, 538,733 shares are available for awards to non-employee directors and officers within the meaning of the rules of the NYSE.

See Note 13 to the Consolidated Financial Statements for a more detailed discussion regarding our equity compensation plans.

## Item 6. Selected Financial Data

The following selected consolidated financial data at and for the years ended December 31, 1999, 2000, 2001, 2002 and 2003 have been derived from our audited annual Consolidated Financial Statements, except for the data under "Other Operating Data." The data set forth below should be read in conjunction with "Preliminary Notes-Presentation of Financial, Legal and Market Data," "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Consolidated Financial Statements and Notes thereto.

	Year Ended December 31,				
	1999	2000	2001	2002	2003
	(Dollars in millions, except per share data)				
Statement of Operations Data:					
Net sales .....	\$ 818	\$ 763	\$ 634	\$ 596	\$ 712
Gross profit .....	256	214	179	135	168
Selling, administrative and other expenses	84	84	75	81	85
Restructuring charges (credit) (a).....	(6)	6	12	6	20
Impairment loss on long-lived and other assets (b).....	35	3	80	17	7
Antitrust investigations and related lawsuits and claims (c) .....	—	—	10	—	32
Securities class action and stockholder derivative lawsuits (d) .....	13	(1)	—	—	—
Other expense (income), net (e) .....	(9)	20	3	(9)	(12)
Interest expense .....	84	75	60	60	45
Provision for (benefit from) income taxes	1	2	14	(16)	5
Income (loss) from continuing operations (a)(b)(c)(d)(e) .....	42	10	(89)	(19)	(26)
Income from discontinued operations (less applicable income tax expense) (f).....	—	—	2	1	1
Gain on sale of discontinued operations (less applicable income tax expense) (f)	—	—	—	—	1
Net income (loss) (a)(b)(c)(d)(e)(f).....	42	10	(87)	(18)	(24)
Basic income (loss) per common share:					
Income (loss) from continuing operations .....	\$ 0.94	\$ 0.22	\$ (1.79)	\$ (0.35)	\$ (0.38)
Income from discontinued operations ....	—	—	0.04	0.02	0.02
Net income (loss) .....	\$ 0.94	\$ 0.22	\$ (1.75)	\$ (0.33)	\$ (0.36)
Weighted average common shares outstanding (in thousands).....					
	45,114	45,224	49,720	55,942	67,981
Diluted income (loss) per common share:					
Income (loss) from continuing operations .....	\$ 0.91	\$ 0.22	\$ (1.79)	\$ (0.35)	\$ (0.38)
Income from discontinued operations ....	—	—	0.04	0.02	0.02
Net income (loss) .....	\$ 0.91	\$ 0.22	\$ (1.75)	\$ (0.33)	\$ (0.36)
Weighted average common shares outstanding (in thousands).....					
	46,503	45,813	49,720	55,942	67,981
Balance sheet data (at period end):					
Cash and cash equivalents.....	\$ 17	\$ 47	\$ 38	\$ 11	\$ 34
Total assets.....	933	908	797	859	967

	<u>Year Ended December 31,</u>				
	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions, except per share data)				
Short-term debt .....	—	3	7	18	1
Payments due within one year on long-term debt .....	82	27	—	—	—
Long-term debt carrying value .....	640	705	631	699	516
Fair value of hedged debt obligation .....	—	—	—	8	(18)
Unamortized bond premium .....	—	—	—	6	4
Total debt .....	722	735	638	731	503
Other long-term obligations (excluding the reserve for antitrust investigations, lawsuits and claims) (g) .....	120	126	132	163	182
Balance of reserve for antitrust investigations, lawsuits and claims .....	131	107	101	98	125
Other long-term obligations .....	224	209	231	258	225
Stockholders' deficit .....	(293)	(316)	(332)	(381)	(128)
Working capital .....	101	99	112	115	94
<b>Other financial data:</b>					
Gross profit margin .....	31.3%	28.1%	28.2%	22.7%	23.6%
Depreciation and amortization .....	\$ 44	\$ 42	\$ 35	\$ 28	\$ 31
Capital expenditures .....	56	52	40	50	41
Net cash provided by (used in) operating activities from continuing operations .....	77	92	14	(60)	(26)
Net cash provided by (used in) operating activities from discontinued operations ..	3	2	3	—	1
Net cash provided by (used in) operating activities .....	80	94	17	(60)	(25)
Net cash used in investing activities .....	(39)	(50)	(39)	(50)	(22)
Net cash provided by (used in) financing activities .....	(80)	(13)	15	79	69
<b>Other operating data:</b>					
Ratio of earnings to fixed charges (h) .....	1.55x	1.20x	—	—	—
Quantity of graphite electrodes sold (in thousands of metric tons) .....	206	217	174	180	200
Quantity of cathodes sold (in thousands of metric tons) .....	31	35	33	37	36

- (a) For 1999, represents a net reduction in the estimate of shutdown costs recorded in 1998. For 2000, represents a \$2 million cash charge in connection with the restructuring of our advanced synthetic graphite products (then called advanced graphite materials) business and a \$4 million cash charge in connection with a corporate restructuring involving a workforce reduction. These costs consisted primarily of severance. For 2001, represents a \$5 million charge related to a corporate realignment of our businesses, the relocation of our corporate headquarters (including severance and related benefits associated with workforce reductions) and the shutdown of graphite electrode manufacturing operations in Clarksville and Columbia, Tennessee and coal calcining operations in Niagara Falls, New York, and a \$7 million charge related primarily to the mothballing of graphite electrode manufacturing operations in Caserta, Italy. The cash portion of these charges was \$10 million. For 2002, represents a \$6 million charge related primarily to the



mothballing of graphite electrode manufacturing operations in Caserta, Italy, including estimated pension, severance and other employee benefit costs. For 2003, represents a \$9 million charge for organizational changes related to U.S. voluntary and selective severance programs and related benefits associated with workforce reductions and an \$11 million charge for the closure and settlement of our U.S. non-qualified defined benefit plan for the participating salaried workforce.

- (b) For 1999, represents impairment loss on long-lived advanced synthetic graphite product assets. For 2000, represents impairment loss on long-lived cathode assets. For 2001, represents a \$53 million impairment loss on long-lived assets primarily related to the shutdowns in Tennessee described in note (a) above, a \$1 million impairment loss related to long-lived assets related to the shutdown in New York described in note (a) above, a \$1 million impairment loss related to the corporate realignment of our subsidiaries, a \$24 million impairment loss related to long-lived assets related to the mothballing in Italy described in note (a) above and a \$3 million impairment loss related to available-for-sale securities. For 2002, represents a \$12 million (\$8 million after tax) impairment loss on long-lived carbon electrode assets in Columbia, Tennessee, a \$2 million impairment loss on available-for-sale securities, and a \$3 million (\$2 million after tax) impairment loss on our investment in our joint venture with Jilin. For 2003, represents a \$5 million impairment loss on long-lived assets relating to the closure of the majority of the graphite electrode manufacturing operations in Caserta, Italy and a \$2 million net non-cash write-off of the remaining book value of assets of our former graphite electrode manufacturing operations in Clarksville, Tennessee.
- (c) Represents additional estimated potential liabilities and expenses in connection with antitrust investigations and related lawsuits and claims.
- (d) Represents estimated liabilities and expenses in connection with securities class action and stockholder derivative lawsuits, \$1 million of which was reversed in 2000.
- (e) Includes: for 2000, a \$21 million write-off of capitalized bank fees and other costs resulting from early extinguishment of debt in connection with a debt recapitalization; for 2002, \$21 million of gains due to currency translation on intercompany loans and translation of financial statements of foreign subsidiaries which use the dollar as their functional currency, \$7 million of gains due to transactions with third parties and a \$4 million write-off of capitalized bank fees and other costs in connection with early extinguishment of debt; and, for 2003, \$35 million of gains due to currency exchange benefits primarily associated with euro-denominated intercompany loans, partially offset by other expenses.
- (f) Represents gain from the sale of our non-strategic composite tooling business in the 2003 second quarter.
- (g) Represents pension, post-retirement and related benefits, employee severance liabilities and miscellaneous other long-term obligations.
- (h) The ratio of earnings to fixed charges has been computed by dividing (i) earnings before

income taxes, plus minority stockholders' equity in consolidated entities, plus fixed charges (excluding capitalized interest), plus amortization of capitalized interest, by (ii) fixed charges, which consist of interest charges (including capitalized interest), plus the portion of rental expense that we deem to include an interest factor. Earnings were insufficient to cover fixed charges by \$72 million in 2001, \$32 million in 2002 and \$23 million 2003. Non-cash restructuring charges and impairment losses on long-lived and other assets were \$82 million 2001, \$17 million in 2002 and \$11 million in 2003. Cash restructuring charges were \$10 million in 2001, \$6 million in 2002 and \$16 million in 2003.

The following quarterly selected consolidated financial data have been derived from the Consolidated Financial Statements for the periods indicated, which have not been audited. The selected quarterly consolidated financial data set forth below should be read in conjunction with "Preliminary Notes—Presentation of Financial, Legal and Market Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Consolidated Financial Statements and Notes thereto.

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
	(Dollars in millions, except per share data)			
<b>2002</b>				
Net sales .....	\$ 133	\$ 157	\$ 150	\$ 156
Gross profit .....	30	35	33	37
Loss from continuing operations .....	(5)	(7)	(5)	(2)
Income from discontinued operations (less applicable income taxes expense) .....	1	—	—	—
Gain on sale of discontinued operations (less applicable income tax expense) .....	—	—	—	—
Net loss (a)(b)(c)(d) .....	(4)	(7)	(5)	\$ (2)
Basic income (loss) per common share:				
Loss from continuing operations .....	\$ (0.08)	\$ (0.15)	\$ (0.09)	\$ (0.04)
Income from discontinued operations .....	<u>0.02</u>	<u>0.01</u>	<u>0.01</u>	<u>—</u>
Net loss per share .....	<u>\$ (0.06)</u>	<u>\$ (0.14)</u>	<u>\$ (0.08)</u>	<u>\$ (0.04)</u>
Diluted income (loss) per common share:				
Loss from continuing operations .....	\$ (0.08)	\$ (0.15)	\$ (0.09)	\$ (0.04)
Income from discontinued operations .....	<u>0.02</u>	<u>0.01</u>	<u>0.01</u>	<u>—</u>
Net loss per share .....	<u>\$ (0.06)</u>	<u>\$ (0.14)</u>	<u>\$ (0.08)</u>	<u>\$ (0.04)</u>

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
	(Dollars in millions, except per share data)			
<b>2003</b>				
Net sales .....	\$ 170	\$ 181	\$ 173	\$ 188
Gross profit .....	39	43	41	45
Income (loss) from continuing operations .....	(10)	6	6	(28)
Income from discontinued operations (less applicable income tax expense) .....	1	—	—	—
Gain on sale of discontinued operations (less applicable income tax expense) .....	—	1	—	—
Net income (loss) (e)(f)(g) .....	(9)	7	6	(28)
Basic income (loss) per common share:				
Income (loss) from continuing operations .....	\$ (0.17)	\$ 0.11	\$ 0.09	\$ (0.30)
Income from discontinued operations .....	<u>0.01</u>	<u>0.01</u>	<u>—</u>	<u>—</u>
Net income (loss) per share .....	<u>\$ (0.16)</u>	<u>\$ 0.12</u>	<u>\$ 0.09</u>	<u>\$ (0.30)</u>
Diluted income (loss) per common share:				
Income (loss) from continuing operations .....	\$ (0.17)	\$ 0.11	\$ 0.09	\$ (0.30)
Income from discontinued operations .....	<u>0.01</u>	<u>0.01</u>	<u>—</u>	<u>—</u>
Net income (loss) per share .....	<u>\$ (0.16)</u>	<u>\$ 0.12</u>	<u>\$ 0.09</u>	<u>\$ (0.30)</u>

- (a) The 2002 first quarter includes a restructuring charge of \$5 million related primarily to the mothballing of graphite electrode manufacturing operations in Caserta, Italy.
- (b) The 2002 second quarter includes a \$12 million (\$8 million after tax) impairment loss on long-lived carbon electrode assets in Columbia, Tennessee and a \$1 million impairment loss on available-for-sale securities.
- (c) The 2002 third quarter includes a \$1 million impairment loss on available-for-sale securities.
- (d) The 2002 fourth quarter includes a \$3 million (\$2 million after tax) impairment loss on our investment in our joint venture with Jilin and an additional restructuring charge of \$1 million related to the mothballing of graphite electrode manufacturing operations in Caserta, Italy.
- (e) The 2003 first quarter includes a restructuring charge of \$19 million related to organizational changes and closure and settlement of our U.S. non-qualified defined benefit plan for the participating salaried workforce.
- (f) The 2003 second quarter includes an additional restructuring charge of \$1 million related to organizational changes.
- (g) The 2003 fourth quarter includes a \$5 million impairment loss on long-lived assets relating to the closure of graphite electrode manufacturing operations in Caserta, Italy and a \$2 million net non-cash write off of the remaining book value of assets of our former graphite electrode manufacturing operations in Clarksville, Tennessee.

## **Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

Reference is made to the information elsewhere in this Report for background information on our businesses, industry and related matters.

### **Repositioning Our Global Manufacturing Network and Other Initiatives**

In January 2002, we announced a major cost savings plan that we believe is one of the most aggressive major cost reduction plans being implemented in our industry.

The key elements of the 2002 plan consist of:

- the further rationalization of graphite electrode manufacturing capacity at our higher cost facilities and the expansion of capacity at our lower cost facilities;
- the implementation of global business and work process changes;
- the redesign and implementation of changes in our benefit plans for active and retired employees;
- the corporate realignment of our subsidiaries to generate significant tax savings; and
- sales of non-strategic assets.

Under the 2002 plan, we are targeting cumulative recurring annual pretax cost savings of \$60 million in 2004 and \$80 million in 2005. Savings achieved under the 2002 plan are additive to those which we achieved by the end of 2001 under our 1998 global restructuring and rationalization plan. All cost savings described below under this section entitled "Repositioning Our Global Manufacturing Network and Other Initiatives" are included in the aggregate amounts set forth above. We achieved recurring pretax cost savings of \$19 million in 2003, for total cumulative savings of \$33 million since January 1, 2002.

We recorded an aggregate of \$33 million of restructuring charges and \$48 million of impairment losses on long-lived and other assets, and expect to record an additional \$6 million of restructuring charges (primarily for severance associated with further global business and work process changes, but excluding additional restructuring charges that may be recorded relating to the closure of the majority of the graphite electrode manufacturing operations in Italy), in connection with the 2002 plan. These charges include payments through December 31, 2003 of \$8 million of cash costs and expected payments of an additional \$27 million of cash costs. All charges described below under this section entitled "Repositioning our Global Manufacturing Network and Other Initiatives" are included in the aggregate amounts set forth above.

Remaining actions associated with the 2002 plan that could result in additional restructuring charges relate primarily to the implementation of global work process changes and additional overhead cost reductions.

***Rationalization of Our Global Manufacturing Network.*** We have repositioned our global manufacturing network by rationalizing our higher cost manufacturing facilities and redeploying capacity to our remaining larger, lower cost, strategically located facilities.

***Graphite Electrodes.*** In 1999 and 2000, we shut down the high cost graphite electrode manufacturing operations at our facilities in Canada and Germany and rationalized the graphite electrode manufacturing operations at our facilities in Russia. In 2001, we shut down the high cost graphite electrode manufacturing operations at our facilities in Tennessee. In 2001, we recorded a \$5 million restructuring charge and a \$53 million impairment loss on long-lived assets primarily relating to the shutdown in Tennessee. In addition, in 2001, we incrementally expanded graphite electrode manufacturing capacity at our lower cost facilities in Mexico, Spain and South Africa for a capital investment of about \$3 million.

In the 2001 fourth quarter, we recorded a \$7 million restructuring charge and a \$24 million impairment loss on long-lived assets in connection with the planned mothballing of our high cost graphite electrode manufacturing operations at our facility in Italy. In 2002, we mothballed the Italian facility and recorded an additional \$6 million restructuring charge. These operations had the capacity to manufacture 26,000 metric tons of graphite electrodes annually. At the end of 2003, we announced the permanent closure of the majority of our graphite electrode manufacturing operations in Italy. We also recorded a \$5 million impairment loss on long-lived assets relating to the remaining fixed assets. In the next twelve to eighteen months, we may record additional restructuring charges and incur additional exit costs in connection with such closure. It is also possible that we may, at any time, decide to permanently shut down our remaining graphite electrode operations in Italy. In such event, we may record additional restructuring charges and incur additional exit costs.

During the 2002 second quarter, we launched the expansion of our graphite electrode manufacturing facility in Mexico from about 40,000 metric tons to about 60,000 metric tons annually. We completed 10,000 metric tons of expansion at this facility by the end of 2002. We completed the remaining 10,000 metric tons of expansion during the 2003 first quarter. The 2003 second quarter was the first full quarter of operation of the fully expanded capacity. In 2002 and 2003, we also incrementally expanded graphite electrode manufacturing capacity at our other facilities. The expansions required capital investments of about \$15 million.

The repositioning of our network allows us to deliver the same graphite electrode sales volume that we delivered over the past few years with a significantly lower fixed cost base. With the repositioning and our proprietary process and technological improvements, we now have the capability, depending on product demand and mix, to manufacture more than 220,000 metric tons of graphite electrodes from our existing assets.

***Other Products.*** In 2001, we shut down our coal calcining operations in New York primarily because we entered into a five-year agreement to purchase calcined coal from a third party at a competitive cost. We recorded a \$1 million impairment loss on the related long-lived assets.

In 2001, we also launched operations on our new advanced natural graphite production line, which was financed with a portion of the net proceeds from our public offering of common stock in July 2001.

In 2002, we recorded a \$12 million impairment loss on our long-lived carbon electrode assets in Tennessee as a result of a decline in demand and loss of market share. The primary end market for carbon electrodes is silicon metal, which was very depressed in the U.S. where our main customer base is located.

***Redesign and Implementation of Changes to Global Manufacturing, Marketing and Sales Processes.*** We have evaluated virtually every aspect of our global supply chain, and we have redesigned and implemented changes to our global manufacturing, marketing and sales processes to leverage the strengths of our repositioned network. Among other things, we have eliminated manufacturing bottlenecks, improved product and service quality and delivery reliability, expanded our range of products, and improved our global sourcing and product mix for our customers. Since 1999, we have reduced annual customer compensation for graphite electrode quality claims from \$3 million to less than \$1 million. We also redirected marketing and sales activities to better service the needs of both existing and new customers.

***Redesign and Implementation of Changes to Benefit Plans.*** In the 2001 fourth quarter and the 2002 first quarter, we redesigned and implemented changes in our retiree medical insurance plan and our U.S. retirement and savings plans for active employees. Among other things, we froze our qualified defined benefit plan and established a new defined contribution plan for most of our U.S. employees.

In July 2002, we amended our U.S. post-retirement medical coverage. Effective March 31, 2003, we discontinued the Medicare supplement plan (for retirees 65 years or older or those eligible for Medicare benefits). This change applies to all active employees except for some employees covered by a collective bargaining agreement, all current retirees who were not covered by a collective bargaining agreement when they retired and those retirees who retired under a former collective bargaining agreement.

In June 2003, we announced the termination of the early retiree medical plan for retirees under age 65, effective December 31, 2005. In addition, we will limit the amount of retiree's life insurance after December 31, 2004.

The impact of these changes is being amortized over the average remaining period to full eligibility of the related post-retirement benefits and resulted in a \$8 million net benefit in 2003 that is reflected on the Consolidated Statements of Operations.

Effective March 2003, we froze our qualified defined benefit plan for our remaining U.S. employees and closed our non-qualified U.S. defined benefit plan for the participating salaried workforce. The closure and settlement of our non-qualified U.S. defined benefit plan resulted in a \$11 million restructuring charge in the 2003 first quarter.

***Implementation of Changes to Global Business Processes.*** We began to implement in 2000 and continue to implement global business and work process rationalization and transformation initiatives, including:

- the streamlining of our organizational structure within our three major lines of business;
- the consolidation and streamlining of order fulfillment, purchasing, finance and accounting, and human resource processes;
- the identification and implementation of outsourcing opportunities;
- the improvement in performance through realignment and enterprise-wide standardization of supply chain processes and systems; and
- the improvement of interfaces and information technology infrastructures with trading partners.

These activities are targeted for completion by the end of 2005. Through December 31, 2003, our investment in these initiatives included about \$13 million of consulting fees and internal costs and \$16 million of capital expenditures, primarily for costs related to implementation of global information technology systems for advanced planning and scheduling software and for global treasury management systems.

We have also implemented and continue to implement an enterprise-wide risk management process whereby we assess the business risks to our goal of maximizing cash flow, using a structured and disciplined approach. This approach seeks to align our personnel and processes with our critical strategic risks so that our management team and GTI's Board of Directors may better evaluate and manage those uncertainties.

Effective April 2001, we entered into a ten-year service contract with CGI Group Inc. ("CGI") valued at \$75 million. Pursuant to this contract, CGI became the delivery arm for our global information technology service requirements, including the design and implementation of our global information and advanced manufacturing and demand planning processes, using J.D. Edwards software. Through this contract, we are seeking to transform our information technology service capability into an efficient, high quality enabler for our global supply chain initiatives as well as a contributor to our cost reduction activities. Under the outsourcing provisions of this contract, CGI manages our data center services, networks, desktops, telecommunications and legacy systems. Through this contract, we believe that we will be able to leverage the resources of CGI to assist us in achieving our information technology goals and our cost savings targets.

In the 2002 third quarter, we entered into a ten year outsourcing contract with CGI valued at \$36 million. Pursuant to this contract, CGI became the delivery arm for our finance and accounting business process services, including accounts receivable and accounts payable activities. CGI also provides various related analytical services such as general accounting, cost accounting and financial analysis activities. Through this contract, we believe that we will be able to further leverage the resources of CGI to assist us in achieving our cost savings targets.

*Severance Programs.* We have implemented and continue to implement voluntary and selective severance programs, designed to complement our global business and work process rationalization and transformation initiatives.

Through December 31, 2003, we substantially completed U.S. voluntary and selective severance programs announced in December 2002, resulting in a reduction of 103 U.S. employees (or 27% of the U.S. salaried workforce). We recorded an \$8 million restructuring charge in the 2003 first quarter in connection with these programs.

From 1998 through December 31, 2003, we reduced our global workforce by about 1,700 employees, or over 30%. Current severance programs are expected to reduce our global workforce by about 75 employees (or about 2%) over the next 12 to 18 months.

*Corporate Realignment of Our Subsidiaries.* In the 2002 first half, we substantially completed the realignment of our foreign subsidiaries under the 2002 plan. Most of the operations and net sales of our synthetic graphite line of business are located outside the U.S. and, as a result of the realignment, are held by our Swiss subsidiary or its subsidiaries. Most of our technology is held by our U.S. subsidiaries.

The realignment of our foreign subsidiaries has resulted and is expected to result in substantial tax savings. We used opportunities created by the realignment to improve cash management and corporate services delivery and reallocate intercompany debt as well as reduce taxes. This reallocation of intercompany debt better matches intercompany debt with cash flow from operations. Debt service on our intercompany debt provides an important source of funds to repay our debt to third parties, including the Senior Facilities, the Senior Notes and the Debentures.

The legal and tax restructuring and global realignment mentioned herein are part of the corporate realignment of our subsidiaries. The tax benefits from the realignment have been recorded separately on the Consolidated Financial Statements from expenses to implement the realignment (which are included in other (income) expense, net).

*Sales of Non-Strategic Assets.* Net cash proceeds from asset sales in 2003 totaled \$24 million, including the sale of our non-strategic composite tooling business based in California in June 2003 for \$16 million (which included a \$1 million working capital adjustment) and the termination of our executive life insurance program and liquidation of our split dollar life insurance policies for executives for net cash proceeds of \$3 million. We intend to continue to sell real estate, non-strategic businesses and certain other non-strategic assets. We are targeting an additional \$25 million of asset sales in 2004, for an aggregate total of about \$50 million from January 1, 2002 through the end of 2004.

### **Recent Strategic Alliance Developments**

We have developed a strategic alliance in the cathode business with Pechiney, the world's recognized leader in aluminum smelting technology. To broaden our alliance, in March 2001, we contributed our Brazilian cathode manufacturing operations to Carbone Savoie. Pechiney, our 30% joint venture partner in Carbone Savoie, contributed approximately \$9 million in cash to Carbone Savoie as part of this transaction. The cash contribution was used to



upgrade manufacturing operations in Brazil and France, which was completed by the end of the 2002 first quarter. Ownership in Carbone Savoie remains 70% by us and 30% by Pechiney. Carbone Savoie holds our entire cathode manufacturing capacity.

We have been working with Ballard Power Systems since 1992 on developing natural graphite-based materials for use in its PEM fuel cells. In June 2001, our subsidiary, AET, entered into an expanded exclusive development and collaboration agreement and an expanded exclusive long-term supply agreement with Ballard Power Systems. In addition, Ballard Power Systems became a strategic investor in AET in June 2001, investing at that time \$5 million in shares of Ballard Power Systems common stock for a 2.5% equity ownership interest in AET.

In April 2001, we entered into a graphite electrode production joint venture with Jilin in China. We are required to make capital contributions of \$6 million of cash (\$2 million of which has been contributed to date) plus technical assistance (\$1 million of which has been contributed to date) for our 25% ownership interest in the joint venture. During the 2002 fourth quarter, we recorded an impairment loss of \$3 million associated with our investment in the joint venture. This impairment resulted from uncertainty about the completion and start-up of the joint venture facilities in China due to the effects that the challenging 2002 graphite electrode industry conditions had on Jilin. We continue to work with Jilin on alternatives. However, we will make no further contributions to the joint venture until we have agreed upon an alternative.

### **Global Economic Conditions and Outlook**

We are impacted in varying degrees, both positively and negatively, as global, regional or specific country conditions fluctuate.

Over the past three years through the 2003 first half, we faced extremely challenging business and industry conditions. Adverse global and regional economic conditions negatively impacted many of the end markets for our products. Many of the customers in these markets reduced production levels (which reduced demand and adversely impacted prices for products sold by us and our competitors), became less creditworthy, filed for bankruptcy protection or were acquired as part of the consolidation trends within their industries. In the 2003 second half, global and certain regional economies began to strengthen. In addition, for most of this period, industry-wide capacity for most of our products exceeded demand. We have been experiencing intense competition, particularly in the graphite electrode industry.

**2001.** Economic weakening in North America continued and became more severe in 2001. This economic weakness was exacerbated by the impact on economic conditions of the terrorist acts in the U.S. in September 2001. Electric arc furnace steel production declined in 2001 as compared to 2000 by about 11% in the U.S.

Worldwide electric arc furnace steel production was stable in 2001 as compared to 2000, as declines in the U.S., Asia (excluding China) and South America were offset by gains in China. The decline of electric arc furnace steel production in South America was caused primarily by shortages of electricity brought on by a drought that reduced hydroelectric power generation in Brazil (that was largely relieved in 2002), and a currency, debt and related economic crisis in neighboring Argentina.

Worldwide electric arc furnace steel production in 2001 was 285 million metric tons, about 33% of total steel production, which was similar to 2000.

While worldwide electric arc furnace steel production was stable, weaker economic conditions resulted in reduced production and, in some cases, the closing of older, less efficient electric arc furnaces. This led to a decline in demand for graphite electrodes worldwide. We estimate that worldwide graphite electrode sales volume declined in 2001 as compared to 2000 by about 9%. Overall pricing worldwide was weak throughout most of this period. While we implemented increases in local currency selling prices of our graphite electrodes in 2000 and early 2001 in Europe, the Asia Pacific region, the Middle East and South Africa, we were not able to maintain all of these price increases. Our volume of graphite electrodes sold declined in 2001 as compared to 2000 by about 20% due primarily to the decline in demand for graphite electrodes worldwide as well as weak economic conditions in some of our more important markets, our efforts to implement and maintain local currency selling price increases and our efforts to seek to minimize credit risks.

The global and regional economic conditions that impacted demand and prices for graphite electrodes also impacted demand and prices for most of our other products. In general, demand was relatively stable and pricing remained relatively weak. Demand and prices for graphite cathodes remained relatively strong primarily due to construction of new aluminum smelters using graphite cathodes, even as old smelters using carbon cathodes are removed from service.

**2002.** Global economic conditions remained relatively weak into 2002, but strengthened slightly in certain markets during the course of the year. We estimate that worldwide electric arc furnace steel production increased by about 5% in 2002 (to a total of about 299 million metric tons, about 33% of total steel production) from 2001. This increase was primarily due to an increase in production in the U.S., Mexico, Brazil and Asia.

In March 2002, President Bush announced his decision to impose tariffs, of up to 30% initially and declining thereafter over a three year period, on most imported steel as part of a broader plan to rescue the financially troubled steel industry in the U.S. Several additional exemptions were granted in 2002 by the Bush administration. We believe that the tariffs had a modest positive impact on electric arc furnace steel production in the U.S. While steel imported from Mexico was exempt from the tariffs, steel imported from Europe and Asia was not exempt. Steel production in those regions had been adversely impacted by the tariffs in 2002. In November 2003, the World Trade Organization ruled that these tariffs are illegal. In December 2003, President Bush announced his decision to lift the tariffs. In turn, the World Trade Organization dropped its pursuit of retaliation against the U.S. and China cancelled many of its steel trade safeguards and duties.

Worldwide graphite electrode demand was very depressed in the 2002 first quarter, but rebounded from those depressed levels during the balance of 2002. During the last three quarters of 2002, we utilized virtually all of our graphite electrode manufacturing capacity. For the entire year 2002, our volume of graphite electrodes sold increased about 4% from 2001. We believe that worldwide graphite electrode demand increased by 3% in 2002 from 2001. We believe that graphite electrode pricing declined by about 10% in 2002 as compared to 2001, driven by global

and industry economic conditions in 2001 and early 2002 and the fact that the prices of graphite electrodes sold in 2002 were largely negotiated during the order book season in late 2001 when global economic conditions were weak.

Demand and prices for cathodes remained strong primarily due to construction of new aluminum smelters using graphite cathodes, even as old smelters using carbon cathodes were removed from service. We used virtually all of our cathode manufacturing capacity during 2002 and our volume of cathodes sold increased about 10% in 2002 from 2001. Weak economic conditions in 2002 resulted in relatively low demand and weak pricing for most of our other products.

**2003.** Global and certain regional economic conditions began to strengthen in the 2003 second half. Steel production increased globally and was particularly strong in China. We estimate that worldwide steel production was about 960 million metric tons in 2003. We estimate that electric arc furnace steel production increased correspondingly, to about 305 million metric tons in 2003. We operated our graphite electrode manufacturing capacity at very high levels, and estimate that (excluding China, for which reliable information is not available) industry-wide graphite electrode manufacturing capacity utilization rate was approximately 97% in 2003.

Graphite electrode price increases announced since September 2002 have been successfully implemented. In February 2003, we implemented graphite electrode price increases of €100 per metric ton in Europe, \$200 per metric ton in Asia, the Middle East, North Africa and South America and \$0.05 per pound in the U.S. In July 2003, we implemented graphite electrode price increases in the following regions: South Africa, to an average price range of \$2,500 to \$2,600 per metric ton; Asia (except China) and the Middle East of \$500 per metric ton; and North and South America, to \$2,600 per metric ton, effective August 1, 2003. In September 2003, we announced additional graphite electrode price increases in Europe of €100 per metric ton.

Demand for cathodes in 2003 (excluding China) decreased slightly from 2002 because of reduced construction of new aluminum smelters. We operated our cathode manufacturing capacity at relatively high operating levels in 2003. Demand for refractories was strong in 2003 as a result of our increased penetration of various markets, including Europe and China, and increased blast furnace construction and refurbishment. Weak economic conditions resulted in relatively low demand and weak pricing in 2003 for most of our other products.

**Outlook.** We believe that we are well positioned to increase earnings and cash flow from operations (excluding payments in connection with restructurings, investigations, lawsuits and claims and the impact of the reduction of factoring of accounts receivable as described under “—Liquidity and Capital Resources”) under current and improving global and regional economic conditions. We expect net sales of all our products to increase by about 10% in 2004 from 2003.

**Synthetic Graphite.** The graphite electrode supply/demand balance has improved, and supply remains tight primarily due to graphite electrode industry-wide rationalization, including bankruptcies of competitors, and, to a lesser extent, increased electric arc furnace steel production. Since September 2002, we have successfully implemented graphite electrode price

increases around the world as described above. In February 2004, we announced graphite electrode price increases of \$150 per metric ton in North and South America (bringing the spot price to \$2,750 per metric ton) and \$150/€115 per metric ton in Europe, Russia and the other countries in the Community of Independent States, the Middle East, Africa and Asia. These price increases are driven by continued upward pressure on energy and raw material costs, strength in steel production and the tight supply/demand balance in the graphite electrode industry. As the majority of our graphite electrode order book has been placed, this recent price increase is expected to impact less than 10% of our 2004 business.

For 2004, we continue to fill our graphite electrode order book and expect average sales revenue per metric ton of graphite electrodes to be approximately \$2,550 for 2004. This represents an increase of approximately \$200 over the average for 2003, an estimated one-quarter of which is associated with expected benefits from net changes in currency exchange rates. We expect graphite electrode sales volume for 2004 to be approximately 210,000 metric tons.

We expect demand for our cathodes in 2004 to be similar to 2003. Our strategic alliance with Pechiney, which is a 30% owner of our cathode business and purchases cathodes from us under a requirements contract that remains in effect through 2006, continues to position us as the leading supplier of cathodes to the aluminum industry.

Operation of our synthetic graphite facilities at capacity is expected to positively impact synthetic graphite cost of sales in 2004 as compared to 2003, offset by higher energy, freight and other raw material costs and the negative impact of net changes in currency exchange rates on costs. In addition, we expect to benefit from our rationalization and other initiatives that allow us to achieve significant increases in productivity and output from our existing assets, including economies of scale and other cost savings that we believe will increase as we grow our sales.

**Other.** We expect growing net sales of our electronic thermal management products and services, due to our continuing successful product development and commercialization initiatives, the development of new, higher performance electronic devices and the strengthening economic condition of the electronics industry. We have developed new electronic thermal management technologies with over 140 product approvals from industry leading strategic partners, customers and others. Sales of our products are growing, from about \$500,000 in 2002 to \$2.2 million in 2003 and an estimated \$8 million in 2004.

We expect financial performance of most of our other businesses to improve from the current levels primarily due to the recovery of economic conditions in the end markets for their products. In particular, demand for carbon electrodes in the U.S. and demand for advanced synthetic graphite products used in the semiconductor, telecommunications and electronics industries is strengthening. In addition, demand for our refractories has strengthened as a result of our increased penetration of various markets, particularly Europe and China, and increased blast furnace construction and refurbishment. We continue to seek to drive productivity and cost improvements in all of these businesses.

At December 31, 2003, after giving effect to the sale of the Debentures and application of the net proceeds therefrom to repay the remaining \$21 million of term loans outstanding under

the Senior Facilities and to make a provisional payment of \$72 million to the EU Competition Authority toward the EU antitrust fine, we would have had total debt of \$707 million (including unamortized bond premium and fair value of hedged debt obligation) cash and cash equivalents of \$158 million and a stockholders' deficit of \$128 million.

We continue to implement interest rate management initiatives to seek to minimize interest expense and optimize the risk in our portfolio of fixed and variable interest rate obligations as described under "Item 7A—Quantitative and Qualitative Disclosures about Market Risks" in this Report. We are targeting interest expense of approximately \$40 million for 2004.

As a result of, among other things, the successful completion of the corporate realignment of our subsidiaries, we are targeting an effective income tax rate of 35% for 2004.

Our outlook could be significantly impacted by, among other things, changes in interest rates by the U.S. Federal Reserve Board and the European Central Bank, changes in tax laws and tax and fiscal policies by the U.S. and other governments, developments in the Middle East, the occurrence of further terrorist acts and developments (including increases in security, insurance, data back-up, energy and transportation and other costs, transportation delays and continuing or increased economic uncertainty and weakness) resulting from terrorist acts and the war on terrorism, and other factors mentioned elsewhere in this Report.

### **Financing Transactions**

In July 2001, we completed a public offering of 10,350,000 shares of common stock at a public offering price of \$9.50 per share. The net proceeds from that offering were \$91 million. 60% of the net proceeds were used to repay term loans outstanding under the Senior Facilities.

In February 2002, we completed an offering of \$400 million aggregate principal amount of Senior Notes at a price of 100% of principal amount. In May 2002, we completed an offering of \$150 million aggregate principal amount of additional Senior Notes at a price of 104.5% of principal amount, plus accrued interest from February 2002. The Senior Notes bear interest at an annual rate of 10.25% and mature in 2012.

The net proceeds from the offering completed in February 2002 were \$387 million. The net proceeds (excluding accrued interest paid by the purchasers of the Senior Notes) from the offering completed in May 2002 were \$151 million. We used all of the net proceeds to reduce the balance outstanding under the Revolving Facility and to repay term loans outstanding under the Senior Facilities. We paid approximately \$13 million of debt issuance costs related to the Senior Notes sold in February 2002 and \$6 million related to the Senior Notes sold in May 2002. These costs are being amortized over the term of the Senior Notes. The \$7 million premium received upon issuance of the additional Senior Notes issued in May 2002 is classified as long-term liability on the Consolidated Balance Sheets and amortized (as a credit to interest expense) over the term of the additional Senior Notes. As a result of our receipt of such premium, the effective annual interest rate on the additional Senior Notes is about 9.5%. We recorded an extraordinary charge of \$4 million (\$3 million, net of tax) in 2002 for write-off of capitalized fees associated with the term loans repaid with the net proceeds from the issuance of the Senior Notes. These extraordinary charges have been reclassified and included in other (income)

expense, net, on the Consolidated Statements of Operations, in accordance with SFAS No. 145 relating to SFAS No. 4.

During 2003, we exchanged \$55 million aggregate principal amount of Senior Notes, plus accrued interest of \$2 million, for approximately 9.9 million shares of our common stock and we purchased \$2.5 million aggregate principal amount of Senior Notes, plus accrued interest, for \$3 million in cash.

In October 2003, we sold an aggregate of 25,300,000 shares of our common stock in a registered public offering at a public offering price of \$8.00 per share. The net proceeds from this offering were approximately \$190 million, of which \$114 million was used to repay term loans outstanding under the Senior Facilities, \$56 million was used to reduce the balance outstanding under the Revolving Facility, and the balance was used to repay other short-term debt. In connection therewith, we recorded a charge of \$2 million for the write-off of capitalized fees associated with the term loans repaid with the net proceeds. The write-off has been included in other (income) expense, net, on the Consolidated Statements of Operations.

On January 22, 2004, we completed an offering of \$225 million aggregate principal amount of Debentures at a price of 100% of principal amount. The net proceeds from the offering were approximately \$217 million. We used the net proceeds to repay the remaining \$21 million of term loans outstanding under the Senior Facilities and to make a provisional payment of \$72 million to the EU Competition Authority against the EU antitrust fine. We intend to use the balance for general corporate purposes, including replacement of financing previously provided by factoring of accounts receivable and strategic acquisitions that are complementary to our businesses. Pending use for a specific corporate purpose, we intend to initially use the net proceeds to reduce the outstanding balance under the Revolving Facility, if any, and, to the extent that at the time there is no such amount outstanding, to invest in short-term, investment quality, interest-bearing securities or deposits.

### **Litigation Against Our Former Parent Companies Initiated by Us**

In February 2000, we commenced a lawsuit against our former parents, Mitsubishi Corporation and Union Carbide Corporation, to recover certain payments made to them in connection with our leveraged equity recapitalization in January 1995 as well as certain unjust receipts by them from their investments in us and damages for aiding and abetting breaches of fiduciary duties owed to us by our former senior management in connection with illegal graphite electrode price fixing activities. We are seeking to recover more than \$1.5 billion, including interest. On January 27, 2004, the court granted the defendants' motions to dismiss the lawsuits. We have appealed this decision. We expect to incur \$10 million to \$20 million for legal expenses to pursue this lawsuit from the date of filing the complaint through appeal and ultimately trial. Through December 31, 2003, we had incurred about \$6 million of these legal expenses. This lawsuit is in its earliest stages, and the ultimate outcome of this lawsuit is subject to many uncertainties.

## **Antitrust Litigation Against Us**

Since 1997, we and other producers and distributors of graphite and carbon products have been subject to antitrust investigations by antitrust authorities in the U.S., the European Union, Canada, Japan and Korea. In addition, civil antitrust lawsuits have been commenced and threatened against us and other producers and distributors of graphite and carbon products in the U.S., Canada and elsewhere.

In April 1998, GTI pled guilty to a one count charge of violating U.S. federal antitrust law in connection with the sale of graphite electrodes and was sentenced to pay a non-interest-bearing fine in the aggregate amount of \$110 million, payable in six annual installments. The payment schedule has been revised periodically at our request. The payment schedule for the \$52.5 million balance consists of quarterly payments ranging from \$3.25 million to \$5.375 million, payable from April 2004 through January 2007. Beginning in 2004, the DOJ may ask the U.S. District Court for the Eastern District of Pennsylvania to accelerate the payment schedule based on a change in our ability to make such payments. Interest will begin to accrue on the unpaid balance, commencing in April 2004, at the statutory rate of interest then in effect. At December 31, 2003, the statutory rate of interest was 1.28% per annum. Accrued interest will be payable together with each quarterly payment. Of the \$110 million original aggregate amount, \$90 million is treated as a fine and \$20 million is treated as imputed interest for accounting purposes.

In January 2000, the EU Competition Authority alleged that we and other producers violated European antitrust laws in connection with the sale of graphite electrodes. In July 2001, the EU Competition Authority assessed a fine of €50.4 million (\$64 million, based on currency exchange rates in effect at December 31, 2003) against us. This decision established the maximum obligation with respect to our last major remaining antitrust liability. After an in-depth analysis of the decision, in October 2001, we filed an appeal to the Court challenging, among other things, the amount of the EU antitrust fine, including the accrual of interest and the rate thereof. The Court has not yet issued its decision. Appeals of this type may take two years or longer to be decided.

Under its decision, the EU Competition Authority stated that, until paid (including a provisional payment described below), the EU antitrust fine would accrue interest at the statutory rate of 8.04% per annum, commencing October 2001, provided, however, that if a letter of credit, sufficient to secure payment of both the fine and interest accrued and accruing thereon, was provided to the EU Competition Authority, then the rate of interest would be 6.04% per annum.

Since the filing of our appeal in October 2001 through September 2003, we negotiated with the EU Competition Authority regarding the appropriate form of collateral security for the EU antitrust fine during the pendency of our appeal. In September 2003, we filed an interim appeal to the Court to waive the requirement for provisional payment of the EU antitrust fine or delivery of a letter of credit as collateral security for payment thereof or to allow us to provide alternative security for payment during the period prior to the Court's decision on our appeal. We withdrew the interim appeal after we posted the provisional payment described below.

In February 2004, we used net proceeds from the issuance and sale of the Debentures to post a provisional payment of \$72 million to the EU Competition Authority against the EU antitrust fine. The provisional payment included \$9 million for accrued interest for the period from October 2001 to the date of the provisional payment at the rate of 6.04% per annum. The EU Competition Authority has advised us that its position is that the provisional payment should have included accrued interest at the rate of 8.04% per annum. We have advised the EU Competition Authority that we disagree with its position and will file an interim appeal challenging its position, if necessary.

A provisional payment constitutes the furnishing of cash collateral intended to secure payment to the EU Competition Authority of a fine and any interest thereon that is ultimately determined to be due, is not an admission of or acquiescence to any liability and will not prejudice our appeal challenging, among other things, the amount of the EU antitrust fine. We will earn interest on the amount paid at an annual rate of 2.1% until the Court's decision on our appeal is issued and becomes final. Such payment does not reflect a change in our assessment of the outcome of our appeal.

In the 2001 second quarter, we became aware that the Brazilian antitrust authority had requested written information from various steelmakers in Brazil. In April 2002, our Brazilian subsidiary received a request for information from that authority. We have provided that information.

Except as described above, the antitrust investigations against us in the U.S., Canada, the European Union, Japan and Korea with respect to graphite electrodes and in the European Union with respect to isostatic and extruded specialty graphite have been resolved. Under plea agreements in the U.S. and Canada, we will not be subject to prosecution by the respective antitrust authorities with respect to any other violations of their respective antitrust laws occurring prior to the date of the applicable plea agreement in connection with the sale of graphite and carbon products. All payments due have been timely paid. It is possible that antitrust investigations seeking, among other things, to impose fines and penalties could be initiated against us by antitrust authorities in Brazil or other jurisdictions.

We have settled, among other things, virtually all of the actual and potential claims against us by customers in the U.S. and Canada arising out of alleged antitrust violations occurring prior to the date of the relevant settlement in connection with the sale of graphite electrodes. All settlement payments due have been timely paid. None of the settlements or plea agreements contain restrictions on future prices of our graphite electrodes. There remain, however, certain pending claims as well as pending lawsuits in the U.S. relating to the sale of graphite electrodes sold to foreign customers. It is also possible that additional antitrust lawsuits and claims could be asserted against us in the U.S. or other jurisdictions.

We have recorded pretax charges of \$382 million against results of operations as a reserve for potential liabilities and expenses in connection with antitrust investigations and related lawsuits and claims. The charges of \$382 million are calculated on a basis that (i) excludes, among other things, both actual and imputed interest on the DOJ antitrust fine and actual interest, if any, on the EU antitrust fine after the Court's decision on our appeal is issued and becomes final and (ii) includes, among other things, the impact of changes in currency



exchange rates on the euro-denominated EU antitrust fine and interest accrued or to accrue on the EU antitrust fine prior to the time the Court's decision on our appeal is issued and becomes final.

Despite the fact that a provisional payment of a fine is only provisional under European law, generally accepted accounting principles require a charge to be recorded to cover the full amount of the provisional payment, to the extent that payment was not already covered by a reserve. In connection with our provisional payment, we recorded a \$32 million charge in the 2003 fourth quarter, which increased our reserve from \$350 million to \$382 million. To the extent that aggregate liabilities and expenses, net, are known or reasonably estimable, as of December 31, 2003, \$382 million represents our estimate of these liabilities and expenses. The guilty pleas and the decisions by the antitrust authorities make it more difficult to defend against other investigations, lawsuits and claims. We believe that the amount of the EU antitrust fine will be reduced on appeal. To the extent that the actual amount of the EU antitrust fine (after all appeals and including any interest thereon) is less than the amount so provisionally paid, any excess would be refunded to us. To the extent that such actual amount exceeds the amount so provisionally paid, we will be required to make an additional payment equal to such excess. Such additional payment may require us to record an additional charge.

Through December 31, 2003, we paid an aggregate of \$257 million of fines and net settlements and expenses (of which \$238 million has been applied against the reserve and \$19 million of imputed interest (which is described below) has not been applied against the reserve). In the aggregate, the fines and net settlements and expenses are within the amounts we used to evaluate the aggregate charges of \$382 million. Our insurance has not and will not materially cover liabilities that have or may become due in connection with antitrust investigations or related lawsuits or claims.

At December 31, 2003, after giving effect to the provisional payment, \$53 million remained in the reserve. The remaining amount of the reserve is unfunded. Such remaining amount is available for the DOJ antitrust fine and other matters. The reserve does not cover interest on the DOJ antitrust fine (including interest that, for accounting purposes, is imputed on the DOJ antitrust fine for the period during which it is non-interest bearing). Such interest is recorded in interest expense on the Consolidated Statements of Operations. Interest accruing on the EU antitrust fine, if any, after the date of the Court's decision on our appeal will be recorded in interest expense.

Actual aggregate liabilities and expenses (including settled investigations, lawsuits and claims as well as continuing investigations, pending appeals and unsettled pending, threatened and possible lawsuits and claims mentioned above) could be materially higher than \$382 million and the timing of payment thereof could be sooner than anticipated.

### **Customer Base**

We are a global company and serve all major geographic markets. Sales of our products to customers outside the U.S. accounted for about 70% of our net sales in 2001, 71% of our net sales in 2002, and 76% of our net sales in 2003. Our customer base includes both steel and non-steel producers. In 2003, two of our ten largest customers were purchasers of non-graphite

electrode products. In 2003, three of our ten largest customers were based in Europe, two were in the U.S., two were in South Africa and one was based in Brazil. No single customer or group of affiliated customers accounted for more than 5% of our net sales in 2003.

### Results of Operations

Financial information discussed below omits our non-strategic composite tooling business that was sold in June 2003 and has been accounted for as discontinued operations. The results of our discontinued operations were not material to our consolidated results of operations.

**2003 Compared to 2002.** Net sales of \$712 million in 2003 represented a \$116 million, or 20%, increase from net sales of \$596 million in 2002. The increase in net sales was primarily due to higher net sales in our synthetic graphite and advanced carbon materials lines of business. Cost of sales of \$544 million in 2003 represented an \$83 million, or 18%, increase from cost of sales of \$461 million in 2002. The increase in cost of sales was primarily due to the higher sales volumes. Gross profit of \$168 million in 2003 represented a 24% increase from gross profit of \$135 million in 2002. Gross margin increased to 23.6% of net sales in 2003 from 22.7% in 2002.

*Synthetic Graphite Segment.* Net sales of \$639 million in 2003 represented a \$101 million, or 18%, increase from net sales of \$538 million in 2002, primarily due to higher sales volume of graphite electrodes and higher average graphite electrode sales revenue per metric ton. Volume of graphite electrodes sold was 200,500 metric tons in 2003 as compared to 180,500 metric tons in 2002. The higher volume of graphite electrodes sold represented an increase of \$42 million in net sales. The increase was a result of stronger demand for graphite electrodes primarily in the United States and Europe. Average sales revenue per metric ton of graphite electrodes in 2003 was \$2,344 as compared to the average in 2002 of \$2,100. The higher average sales revenue per metric ton represented an increase of \$49 million in net sales. The increase was primarily due to net changes in currency exchange rates and, to a lesser extent, increases in graphite electrode prices. Net sales of cathodes increased in 2003 by 4%, or \$4 million, from net sales of \$90 million in 2002. The increase was primarily due to the net positive impact of changes in currency exchange rates, partially offset by lower sales volume and lower average sales price.

Cost of sales of \$488 million in 2003 represented a \$75 million, or 18%, increase from cost of sales of \$413 million in 2002, primarily due to the higher sales volume of graphite electrodes. Gross profit in 2003 was \$151 million, or 21% or \$26 million higher than in 2002. The increase in gross profit was primarily due to higher graphite electrode net sales, and improved productivity from higher operating levels throughout the production network and the net positive impact of changes in currency exchange rates. These improvements were partially offset primarily by higher freight, higher energy and other raw materials costs. Gross margin was 23.7% of net sales in 2003, higher than the 23.2% of net sales in 2002.

*Other Segment.* Net sales of \$73 million in 2003 represented a \$15 million, or 27%, increase from net sales of \$58 million in 2002, primarily due to higher volume of refractories sold by our advanced carbon materials line of business. Cost of sales of \$56 million in 2003 represented an \$8 million, or 19%, increase from cost of sales of \$48 million in 2002. The

increase in cost of sales was primarily related to higher sales volume in our advanced carbon materials line of business, higher energy costs and changes in product mix, partially offset by improved productivity from higher operating levels. Gross profit in 2003 was \$17 million (a gross margin of 23.1% of net sales) as compared to gross profit in 2002 of \$10 million (a gross margin of 18.5% of net sales).

*Items Affecting Us As a Whole.* Research and development was \$11 million in 2003, a decrease of \$2 million from 2002. The decrease was primarily due to cost savings resulting from our voluntary and selective severance programs.

Selling, administrative and other expenses were \$85 million in 2003, an increase of \$4 million from 2002. In 2003, we recorded higher variable incentive compensation expense and incurred higher costs from continued strengthening of the euro in 2003 and the continued implementation of global work process changes and information systems. These higher costs were partially offset by cost savings from our voluntary and selective severance programs. In addition, in 2002, we benefited from a one-time reduction in franchise and other taxes associated with the corporate realignment of our subsidiaries.

Other (income) expense, net, was income of \$12 million in 2003, primarily due to currency exchange benefits of \$35 million, which were primarily associated with euro-denominated intercompany loans. These benefits were partially offset by other expenses, including primarily \$5 million for bank fees, including losses on sales of accounts receivable, a \$4 million non-cash write down of fixed assets, \$4 million for employee benefit curtailment and related costs, \$3 million for non-income taxes in Brazil and Switzerland, \$2 million associated with the write-off of capitalized bank fees and related debt extinguishment costs and a \$1 million charge associated with mark-to-market adjustments on interest rate caps. Other (income) expense, net, was net income of \$9 million in 2002, primarily due to currency exchange benefits of \$28 million which were associated with euro-denominated intercompany loans. These benefits were partially offset by other expenses, including primarily \$4 million for bank fees, including losses on sales of accounts receivable, \$3 million in legal expenses and settlements and \$1 million associated with the curtailment of employee benefit plans.

We recorded \$20 million of restructuring charges in 2003, consisting of \$9 million for organizational changes and \$11 million for the closure and settlement of our U.S. non-qualified defined benefit plan for the participating salaried workforce. The \$9 million charge for organizational changes related to U.S. voluntary and selective severance programs and related benefits associated with a workforce reduction of 103 employees. The closure of our non-qualified U.S. defined benefit plan resulted in recognition of net actuarial losses of \$11 million. Approximately half of the \$9 million will involve cash outlays. We recorded \$6 million of restructuring charges in 2002. The charges related primarily to the mothballing of graphite electrode manufacturing operations in Italy. This charge included estimated pension, severance and other related employee benefit costs for 102 employees and other cost related to the mothballing. At the end of 2003, we announced the permanent closure of the majority of our graphite electrode manufacturing operations in Italy. In the next twelve to eighteen months, we may record additional restructuring charges and incur additional exit costs in connection with such closure. It is possible that we may, at any time, decide to permanently shut down our

remaining graphite electrode operations in Italy. In such event, we may record additional restructuring charges and incur additional exit costs.

We recorded a \$5 million impairment loss on long-lived and other assets relating to the remaining fixed assets at our graphite electrode manufacturing facility in Italy in connection with such closure. In 2003, we sold land in Clarksville, Tennessee and received net proceeds of \$2 million. We recorded a \$2 million net non-cash write off of the remaining book value of assets at this site. In 2002, we recorded a \$12 million impairment loss on our long-lived carbon electrode assets in Columbia, Tennessee, a \$3 million impairment loss on our investment in our joint venture with Jilin and a \$2 million impairment loss on available-for-sale securities.

We recorded a \$32 million charge in the 2003 fourth quarter relating to the EU antitrust fine.

Interest expense was \$45 million in 2003 as compared to \$60 million in 2002. Average total debt outstanding was \$697 million in 2003 as compared to \$701 million in 2002. The average annual interest rate was 7.1% in 2003 as compared to 8.5% in 2002. These average annual rates include \$13 million of interest rate benefit from our interest rate swaps, but exclude imputed interest on the DOJ antitrust fine, \$2 million of amortization of the net proceeds of \$30 million with respect to the sale of swaps and a \$6 million credit to interest expense from the acceleration of the amortization of gains realized from the sale of interest rate swaps due to the early extinguishment of debt from our exchanges of common stock for Senior Notes during 2003.

Provision for income taxes was a charge of \$5 million in 2003 as compared to a benefit of \$16 million in 2002. The effective income tax rate was not meaningful in 2003 because we incurred income tax expense of \$5 million even though we recognized a loss from continuing operations of \$20 million, primarily due to tax expense of \$8 million associated with non-deductible antitrust related charges and an additional \$5 million from adjustments increasing the deferred tax asset valuation allowances. The effective income tax rate was a benefit of 49% in 2002, primarily due to higher state tax benefits of \$13 million and certain other benefits of \$17 million primarily associated with the impact of impairment losses on long-lived and other assets and restructuring charges, partially offset by tax expense of \$16 million from adjustments increasing the deferred tax asset valuation allowances and \$8 million from the impact of dividends of foreign earnings. The effective income tax rate was 40% in 2003 and about 35% in 2002, in each case excluding the impact of impairment losses on long-lived and other assets, restructuring charges and the charge related to the EU antitrust fine.

During 2003, we recorded a \$1 million gain from the sale of our non-strategic composite tooling business. The discontinued business recorded a net income from operations of \$1 million in 2003 and 2002.

As a result of the changes described above, net loss was \$24 million in 2003 as compared to net loss of \$18 million in 2002.

**2002 Compared to 2001.** Net sales in 2002 were \$596 million, a decrease of \$38 million, or 6%, from net sales in 2001 of \$634 million. Gross profit in 2002 was \$135 million, a decrease

of \$44 million, or 24%, from gross profit in 2001 of \$179 million. Gross profit margin in 2002 was 22.7% of net sales as compared to gross profit margin in 2001 of 28.2% of net sales. The decrease in net sales and gross profit was primarily due to lower sales revenue per metric ton for our graphite electrodes, which reduced net sales by about \$43 million.

*Synthetic Graphite Segment.* Net sales decreased 4%, or \$21 million, to \$538 million in 2002 from \$559 million in 2001. The decrease was primarily attributable to a decrease in average sales revenue per metric ton of graphite electrodes, partially offset by higher sales volumes for graphite electrodes and cathodes sold. The volume of graphite electrodes sold increased 6,000 metric tons, or 4%, to 180,500 metric tons in 2002 as compared to 174,000 metric tons in 2001. The increase in volume of graphite electrodes sold represented an increase in net sales of about \$16 million. The average sales revenue per metric ton (in U.S. dollars and net changes in currency exchange rates) of our graphite electrodes was \$2,100 in 2002 as compared to \$2,341 in 2001. The reduced average sales revenue per metric ton of graphite electrodes represented a decrease of about \$43 million in net sales. Unfavorable changes in currency exchange rates represented a reduction of about \$4 million in net sales of graphite electrodes. Volume of cathodes sold in 2002 was 10% higher than in 2001, with 36,900 metric tons in 2002 as compared to 33,400 metric tons in 2001, and net sales of cathodes in 2002 were 17% higher than in 2001. We completed the expansion of our cathode manufacturing capacity in Brazil in 2002 and were successful in selling virtually all of our cathode manufacturing capacity for 2002.

Synthetic Graphite segment cost of sales increased 4%, or \$15 million, to \$413 million in 2002 from \$398 million in 2001. The increase in cost of sales was primarily due to higher volume of graphite electrodes sold, partially offset by lower average graphite electrode cost of sales per metric ton. The reduction in average graphite electrode cost of sales per metric ton was primarily due to cost savings initiatives and lower average fixed cost per metric ton due to facility closures and, to lesser extent, net changes in currency exchange rates.

Gross profit decreased 22%, or \$36 million, to \$125 million (23.2% of net sales) in 2002 from \$161 million (28.8% of net sales) in 2001.

*Other Segment.* Net sales decreased 23%, or \$17 million, to \$58 million in 2002 from \$75 million in 2001. We had lower net sales in each of our product lines, especially in advanced carbon materials due to a cyclical decrease in the volume of refractories sold and in flexible graphite due to lower sales of sealing products sold to the transportation industry. Cost of sales decreased 17%, or \$9 million, to \$48 million in 2002 from \$57 million in 2001. The decline was primarily due to lower volume of products sold. Gross profit decreased 41%, or \$8 million, to \$10 million (18.5% of net sales) in 2002 from \$18 million (24.3% of net sales) in 2001.

*Other Items Affecting Us as a Whole.* Selling, administrative and other expense increased by \$1 million to \$81 million in 2002 from \$75 million in 2001. In 2002, we recorded a \$5 million charge related to the accelerated vesting of restricted stock.

Other expense (income), net, was \$9 million of income in 2002 as compared to \$3 million of expense in 2001. We recorded both other income and other expense in both periods resulting from various non-operational activities, including gains from currency transactions and translation. In 2002, we had \$28 million in currency gains, \$21 million of which gain was due to

currency translation on intercompany loans and translation of financial statements of foreign subsidiaries which use the dollar as their functional currency and \$7 million of which related to transactions with third parties. These gains were partially offset by other expenses, including primarily \$4 million for bank fees resulting partially from losses on sales of accounts receivable, \$3 million in legal expenses and settlements, \$3 million in corporate realignment and related expenses and \$1 million associated with the curtailment of employee benefit plans.

In 2002, we recorded a total of \$23 million in impairment losses and restructuring charges as described below:

- In the 2002 fourth quarter, we recorded a \$3 million (\$2 million after tax) charge relating to the impairment of our investment in our joint venture with Jilin. This impairment resulted from uncertainty about the completion and start-up of the joint venture facilities in China due to the effects that the challenging 2002 graphite electrode industry conditions had on Jilin.
- In the 2002 second and third quarters, we recorded a total of \$2 million of charges related to the impairment of available-for-sale securities.
- In the 2002 second quarter, we recorded a \$12 million (\$8 million after tax) charge primarily related to the impairment of our long-lived carbon electrode assets in Columbia, Tennessee.
- In the 2002 first and fourth quarter, we recorded a total of \$6 million of restructuring charges related primarily to the mothballing of our graphite electrode manufacturing operations in Caserta, Italy. These charges included estimated pension, severance and other related employee benefit costs.

In 2001, we recorded a total of \$92 million, net, in impairment losses and restructuring charges as described below:

- In the 2001 fourth quarter, we recorded a \$7 million restructuring charge and a \$27 million impairment loss on long-lived and other assets. The restructuring charge related primarily to exit costs related to the mothballing of our graphite electrode manufacturing operations in Caserta, Italy. \$24 million of the impairment loss on long-lived assets related to assets located at our facility in Caserta, Italy. The remaining \$3 million related to the impairment of available-for-sale securities.
- In the 2001 third quarter, we recorded a \$2 million restructuring charge related to a corporate realignment of our businesses, the relocation of our corporate headquarters and the shutdown of our coal calcining operations located in Niagara Falls, New York. The charge includes severance and related benefits associated with a workforce reduction of 24 employees and impairment of leasehold improvement assets.
- In 2001 third quarter, we reversed \$2 million of prior restructuring charges based on revised lower estimates of workforce reductions and plant closure costs, and we

reclassified \$4 million of prior restructuring charges related to on-site waste disposal post-monitoring costs to other long-term obligations.

- In the 2001 second quarter, we recorded a \$58 million charge for restructuring and impairment loss on long-lived assets related to the shutdown of our graphite electrode manufacturing operations in Clarksville and Columbia, Tennessee and our coal calcining operations in Niagara Falls, New York. The \$58 million charge includes restructuring charges of \$2 million for severance and related benefits associated with a workforce reduction of 171 employees and \$3 million in plant shutdown and related costs. The remaining \$53 million relates to the impairment loss on long-lived assets.

In addition, in 2001, we recorded a \$10 million charge for additional potential liabilities and expenses in connection with antitrust investigations.

Interest expense was stable at \$60 million in each of 2002 and 2001. Our average outstanding total debt was \$701 million in 2002 as compared to \$683 million in 2001 and our average annual interest rate was 8.5% in 2002 as compared to 8.1% in 2001. These average annual interest rates exclude imputed interest on antitrust fines, which decreased \$3 million to \$1 million in 2002 from \$4 million in 2001.

Benefit from income taxes was \$16 million in 2002 as compared to provision for income taxes of \$14 million for 2001. The effective income tax rate was a benefit of 49% in 2002, primarily due to higher state tax benefits of \$13 million and certain other benefits of \$17 million primarily associated with the impact of impairment losses on long-lived and other assets and restructuring charges, partially offset by tax expense of \$16 million from adjustments increasing the deferred tax asset valuation allowances and \$8 million from the impact of dividends of foreign earnings. During 2001, the benefit from and provision for income taxes reflected an effective rate of about 35%, excluding the impact of impairment losses on long-lived and other assets, restructuring charges, the charge related to antitrust investigations and related lawsuits and claims, and the charge related to the corporate realignment of our subsidiaries.

As a result of the changes described above, net loss was \$18 million in 2002, an improvement of \$69 million from net loss of \$87 million in 2001.

### **Effects of Inflation**

We incur costs in the U.S. and each of the six non-U.S. countries in which we have a manufacturing facility. In general, our results of operations, cash flows and financial condition are affected by the effects of inflation on our costs incurred in each of these countries. See “—Currency Translation and Transactions” for a further discussion of highly inflationary countries.

During the past three years, we experienced higher freight, energy and other raw material costs primarily due to substantial increases in regional and worldwide market prices of natural gas and other petroleum-based raw materials. We have been able to generally mitigate the effects of those increases on our cost of sales by a combination of improved operating efficiency and on-going cost savings. In addition, during 2003, we mitigated seasonal increases in our

natural gas costs by entering into short duration fixed rate purchase contracts with certain of our North American suppliers. These contracts expire at the end of the 2004 first quarter. In addition, we have entered into natural gas hedge contracts, effectively fixing 100% of our direct and indirect natural gas cost exposure in North America (45% of direct worldwide exposure) through April 2004. Except as described above, we did not experience significant inflation with respect to our costs. We cannot assure you that future increases in our costs will not occur or exceed the rate of inflation or the amounts, if any, by which we may be able to increase prices for our products.

### **Currency Translation and Transactions**

We account for our non-U.S. subsidiaries under SFAS No. 52, "Foreign Currency Translation." Accordingly, except for highly inflationary countries, the assets and liabilities of our non-U.S. subsidiaries are translated into dollars for consolidation and reporting purposes. Foreign currency translation adjustments are generally recorded as part of stockholders' equity and identified as part of accumulated other comprehensive loss on the Consolidated Balance Sheets until such time as their operations are sold or substantially or completely liquidated.

We have subsidiaries in Russia, Mexico, Brazil and other countries which have had in the past, and may have now or in the future, highly inflationary economies, defined as cumulative inflation of about 100% or more over a period of three calendar years. In general, the financial statements of foreign operations in highly inflationary economies are remeasured as if the functional currency of their economic environments were the dollar and translation gains and losses relating to these foreign operations are included in other (income) expense, net, on the Consolidated Statements of Operations rather than as part of stockholders' equity on the Consolidated Balance Sheets. We also record foreign currency transaction gains and losses as part of other (income) expense, net.

We account for our Mexican subsidiary using the dollar as its functional currency, irrespective of Mexico's inflationary status, because its sales and purchases are predominantly dollar-denominated. In addition, we account for our Russian subsidiary using the dollar as its functional currency because Russia is considered to have a highly inflationary economy.

Significant changes in currency exchange rates impacting us are described under "— Effects of Changes in Currency Exchange Rates." Foreign currency translation adjustments decreased stockholders' equity by \$29 million, including \$21 million associated with our South African subsidiary, in 2001 and \$20 million, including \$16 million associated with our Brazilian subsidiary, in 2002. These adjustments increased stockholders' equity by \$12 million in 2003.

### **Effects of Changes in Currency Exchange Rates**

We incur costs in dollars and the currency of each of the six non-U.S. countries in which we have a manufacturing facility, and we sell our products in multiple currencies. In general, our results of operations, cash flows and financial condition are affected by changes in currency exchange rates affecting these currencies relative to the dollar and, to a limited extent, each other.



When the currencies of non-U.S. countries in which we have a manufacturing facility decline (or increase) in value relative to the dollar, this has the effect of reducing (or increasing) the dollar equivalent cost of sales and other expenses with respect to those facilities. This effect is, however, partially offset by the cost of petroleum coke, a principal raw material used by us, which is priced in dollars. In certain countries where we have manufacturing facilities, and in certain instances where we price our products for sale in export markets, we sell in currencies other than the dollar. Accordingly, when these currencies increase (or decline) in value relative to the dollar, this has the effect of increasing (or reducing) net sales. The result of these effects is to increase (or decrease) operating profit and net income.

Many of the non-U.S. countries in which we have a manufacturing facility have been subject to significant economic pressures, which have impacted inflation and currency exchange rates. We seek to mitigate adverse impacts of changes in currency exchange rates on net sales by increasing local currency prices for some of our products in various regions as circumstances permit.

During 2001, the euro declined about 5%, the Brazilian real declined about 16% and the South African rand declined about 36% relative to the dollar.

During 2002, the Brazilian real declined about 35%, the South African rand increased about 38% and the euro increased about 18% relative to the dollar. During 2003, the average exchange rate of the euro and the South African rand increased about 20% and 40%, respectively, when compared to the average exchange rate for 2002. During 2003, the average exchange rate for the Brazilian real and the Mexican peso declined about 1% and 11%, respectively, when compared to the average exchange rate for 2002.

In the case of net sales of graphite electrodes, the impact of these events was a reduction of about \$15 million in 2001, a reduction of about \$4 million in 2002 and an increase of about \$33 million in 2003. In the case of cost of sales of graphite electrodes, the impact of these events was a reduction of about \$6 million in 2001, a reduction of about \$5 million in 2002 and an increase of about \$24 million in 2003.

We seek to mitigate adverse impacts of changes in currency exchange rates on net sales by increasing local currency prices for some of our products in various regions as circumstances permit. We cannot predict changes in currency exchange rates in the future or whether those changes will have net positive or negative impacts on our net sales, cost of sales or net income. We cannot assure you that we would be able to mitigate any adverse effects of such changes.

We have non-dollar denominated intercompany loans between GrafTech Finance and some of our foreign subsidiaries. At December 31, 2003, the aggregate principal amount of these loans was \$423 million (based on currency exchange rates in effect at December 31, 2003). These loans are subject to translation gains and losses due to changes in currency exchange rates. A portion of these loans are deemed to be essentially permanent and, as a result, translation gains and losses on these loans are recorded in accumulated other comprehensive loss on the Consolidated Balance Sheets. The balance of these loans are deemed to be temporary and, as a result, translation gains and losses on these loans are recorded as unrealized gains or losses in other (income) expense, net, on the Consolidated Statements of Operations. We have the ability

to replace each intercompany loan with an identical new intercompany loan. When we replace such a loan, we record net cumulative realized translation gains or losses with respect to that loan in other expense (income), net. Those realized gains or losses are, however, non-cash gains or losses. Foreign currency translation gains and losses relating to these loans included in other expense (income), net, were a loss of \$4 million in 2001, a gain of \$21 million in 2002 and a gain of \$39 million in 2003. To manage certain exposures to specific financial market risks caused by changes in currency exchange rates, we use various financial instruments as described under "Item 7A—Qualitative and Quantitative Disclosures about Market Risks."

### **Liquidity and Capital Resources**

Our sources of funds have consisted principally of invested capital, cash flow from operations and debt and equity financings. Our uses of those funds (other than for operations) have consisted principally of debt reduction, capital expenditures, payment of fines, liabilities and expenses in connection with antitrust investigations, lawsuits and claims and payment of restructuring costs.

We are highly leveraged, and we have substantial obligations in connection with antitrust investigations, lawsuits and claims. At December 31, 2003, after giving effect to the issuance and sale of the Debentures and initial application of the net proceeds therefrom to repay the remaining \$21 million of term loans outstanding under the Senior Facilities and to make a provisional payment of \$72 million to the EU Competition Authority toward the EU antitrust fine, we had total debt of \$707 million (including unamortized bond premium and fair value of hedged debt obligation), cash and cash equivalents of \$158 million and a stockholders' deficit of \$128 million. In addition, we have historically discounted or factored a substantial portion of our accounts receivable and used the proceeds to reduce our debt. If we had not sold such receivables, our accounts receivable and our debt would have been about \$45 million higher at December 31, 2003. We intend to reduce our factoring of accounts receivable and use a portion of the net proceeds from the sale of the Debentures to replace the financing previously provided by factoring of accounts receivable.

We use cash and cash equivalents, funds available under the Revolving Facility and cash flow from operations as our primary sources of liquidity. Availability of funds under the Revolving Facility is subject to continued compliance with the financial covenants under the Senior Facilities. At December 31, 2003, we were in compliance with the financial covenants under the Senior Facilities and had no outstanding balance under the Revolving Facility with \$236 million (after consideration of outstanding letters of credit and at currency exchange rates in effect at December 31, 2003) fully available.

At December 31, 2003, after giving effect to the issuance and sale of the Debentures and initial application of the net proceeds therefrom to repay the remaining \$21 million of term loans outstanding under the Senior Facilities and to make a provisional payment of \$72 million to the EU Competition Authority toward the EU antitrust fine, 70% (or \$493 million) of our total debt had effectively been converted to variable rate obligations. At December 31, 2003, we also had interest rate caps for a total notional amount of \$500 million through August 2007. These instruments effectively cap our interest rate exposure (represented by the net impact of our swaps

on the Senior Notes) to no greater than 428 basis points above the six-month LIBOR rate of 122 basis points at December 31, 2003.

**2003 Deleveraging Actions.** We completed over \$300 million in de-leveraging actions in 2003. These actions consisted of sales of non-strategic assets that generated net proceeds of \$24 million, including the sale of our non-strategic composite tooling business for \$16 million (which includes a working capital adjustment of \$1 million), the sale of interest rate swaps for net cash proceeds of \$30 million, the exchange of common stock for \$55 million aggregate principal amount of Senior Notes, plus accrued interest, and the public offering of shares of our common stock for net proceeds of \$190 million. Virtually all of such proceeds were used to reduce debt.

**Long-Term Contractual, Commercial and Other Obligations and Commitments.** The following tables summarize our long-term contractual obligations and other commercial commitments at December 31, 2003.

		<u>Payment Due By Period</u>			
		<u>Year</u>	<u>Two</u>	<u>Two</u>	<u>Years</u>
		<u>Ending</u>	<u>Years</u>	<u>Years</u>	<u>Ending</u>
		<u>December</u>	<u>December</u>	<u>December</u>	<u>December</u>
	<u>Total</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	<u>2008</u>
<u>(Dollars in millions)</u>					
<b><u>Contractual and Other Obligations</u></b>					
Long-term debt (a) .....	\$ 502	\$ —	\$ 1	\$ 22	\$ 479
Capital lease obligations .....	—	—	—	—	—
Operating leases .....	8	3	5	—	—
Unconditional purchase obligations...	<u>45</u>	<u>8</u>	<u>15</u>	<u>10</u>	<u>12</u>
Total contractual obligations (a) ..	555	11	21	32	491
Estimated liabilities and expenses in connection with antitrust investigations and related lawsuits and claims .....	125	82	38	5	—
Postretirement, pension and related benefits .....	105	28	16	15	46
Other long-term obligations .....	<u>38</u>	<u>7</u>	<u>3</u>	<u>3</u>	<u>25</u>
Total contractual and other obligations (a) .....	<u>\$ 823</u>	<u>\$ 128</u>	<u>\$ 78</u>	<u>\$ 55</u>	<u>\$ 562</u>
<b><u>Other Commercial Commitments</u></b>					
Lines of credit .....	\$ 37	\$ 37	\$ —	\$ —	\$ —
Letters of credit .....	17	17	—	—	—
Guarantees .....	<u>4</u>	<u>1</u>	<u>2</u>	<u>—</u>	<u>1</u>
Total other commercial commitments .....	<u>\$ 58</u>	<u>\$ 55</u>	<u>\$ 2</u>	<u>\$ —</u>	<u>\$ 1</u>

(a) At December 31, 2003, after giving effect to the issuance and sale of the Debentures and the application of the estimated net proceeds therefrom to repay the remaining \$21 million of term loans outstanding under the Senior Facilities and to make a provisional payment of \$72 million to the EU Competition Authority against the EU antitrust fine; (i) long-term debt

would have been \$706 million (all years), nil (year ending December 2004), \$1 million (two years ending December 2006), \$1 million (two years ending December 2008), and \$704 million (years ending after 2008), (ii) total contractual obligations would have been \$759 million (all years), \$11 million (year ending December 2004), \$21 million (two years ending December 2006), \$11 million (two years ending December 2008), and \$716 million (years ending after December 2008) and (iii) total contractual and other obligations would have been \$955 million (all years), \$56 million (year ending December 2004), \$78 million (two years ending December 2006), \$34 million (two years ending December 2008), and \$787 million (years ending after December 2008).

The first preceding table includes our reserve for estimated liabilities and expenses in connection with antitrust investigations and related lawsuits and claims, which includes the EU antitrust fine of €50.4 million. The timing of payment of the EU antitrust fine is, for purposes of this table, reflected in the column captioned “payments due during year ending December 2004” on the line entitled “estimated liabilities and expenses in connection with antitrust investigations and related lawsuits and claims.” In February 2004, we made a provisional payment of \$72 million to the EU Competition Authority against the EU antitrust fine. While we cannot assure you that such will be the case, we believe the amount of the EU antitrust fine will be reduced on appeal. To the extent that the actual amount of the EU antitrust fine (after all appeals and including any interest thereon) is less than the amount so provisionally paid, any excess would be refunded to us. To the extent that such actual amount exceeds the amount so provisionally paid, we will be required to make an additional payment equal to such excess.

Effective April 2001, we entered into a ten year service contract with CGI valued at \$75 million (\$38 million of which is the unconditional purchase obligation at December 31, 2003). Pursuant to this contract, CGI provides a majority of our global information technology service requirements. We are dependent on CGI for these services. A failure by CGI to provide these services to us in a timely manner could have an adverse effect on our operations and results of operations. The first preceding table includes a line entitled “unconditional purchase obligations” that includes the minimum purchases under that contract. In September 2002, we entered into a ten year outsourcing contract with CGI to provide finance and accounting business process services valued at \$36 million. That contract does not constitute an unconditional purchase obligation and therefore is not included in the first preceding table.

The second preceding table includes a line entitled “lines of credit.” These are local lines of credit established by our foreign subsidiaries for working capital purposes and are not part of our revolving credit facility.

Our pension benefit obligations were underfunded by about \$46 million at December 31, 2003 as compared to about \$80 million at December 31, 2002. This decrease in underfunding was primarily due to contributions in cash and in shares of our common stock made by us and the increase in asset values resulting from the returns on invested assets in 2003.

**Cash Flow and Plans to Manage Liquidity.** As a result of our significant leverage, our substantial obligations in connection with antitrust investigations, lawsuits and claims, and our substantial other long-term contractual and commercial obligations and commitments, we have placed high priority on efforts to manage cash, generate additional cash flow and reduce debt.

Our longer term efforts include our 1998 major cost savings plan, our 2002 major cost savings plan and our other cost savings activities, our strategic alliances and our financing activities. Our shorter term efforts include our interest rate management and working capital initiatives.

During the four years prior to 2002, we had positive annual cash flow from operations, excluding payments in connection with restructurings and investigations, lawsuits and claims. Typically, the first quarter of each year resulted in neutral or negative cash flow from operations (excluding payments in connection with restructurings, antitrust investigations, lawsuits and claims and the impact of the reduction of factoring of accounts receivable) due to various factors. These factors included customer order patterns, customer buy-ins in advance of annual price increases, fluctuations in working capital requirements and payment of variable compensation with respect to the immediately preceding year. Typically, the other three quarters resulted in positive cash flow from operations (before such exclusions). The third quarter tended to produce relatively less positive cash flow primarily as a result of scheduled plant shutdowns by our customers for vacations.

Our cash flow from operations (before such exclusions) in the first and third quarters typically is adversely impacted by the semi-annual interest payments on the Senior Notes and will be further impacted by the semi-annual interest payments on the Debentures beginning in July 2004. The second and fourth quarters correspondingly benefit from the absence of such interest payments.

As part of our cash management activities, we seek to manage accounts receivable credit risk, collections, and accounts payable and payments thereof to seek to maximize our free cash at any given time and minimize accounts receivable losses. In addition, we have historically discounted or factored a portion of our accounts receivable and used the proceeds to reduce our debt. Certain of our subsidiaries sold receivables totaling \$223 million in 2001, \$187 million in 2002 and \$175 million in 2003. Accounts receivable sold and remaining on the Consolidated Balance Sheets was \$1 million at December 31, 2002 and nil at December 31, 2003. If we had not sold such receivables, our accounts receivable and our debt would have been about \$46 million higher at December 31, 2002 and \$45 million higher at December 31, 2003. When we sell receivables, we incur costs equal to approximately 3.2% to 8.0% of the amount of the receivables sold. In addition, careful management of credit risk over at least the past three years has allowed us to avoid significant accounts receivable losses notwithstanding the poor financial condition of many of our potential and existing customers. In order to seek to minimize our credit risks, we reduced our sales of, or refused to sell (except for cash on delivery), graphite electrodes to some customers and potential customers in the U.S. and, to a limited extent, elsewhere. Our unrecovered trade receivables worldwide was only 0.2% of global net sales during this period. We cannot assure you that we will not be materially adversely affected by accounts receivable losses in the future. We currently intend to reduce factoring of accounts receivable and use a portion of the net proceeds from the sale of the Debentures to replace the financing previously provided by factoring of accounts receivable.

We use cash and cash equivalents, funds available under the Revolving Facility and cash flow from operations as our primary sources of liquidity. We believe that our cost savings initiatives will, over the next one to two years, continue to improve our cash flow from operations for a given level of net sales. Improvements in cash flow from operations resulting

from these initiatives are being partially offset by associated cash implementation costs, while they are being implemented. We also believe that our planned sales of non-strategic assets together with these improvements in cash flow from operations should allow us to reduce our debt and other obligations over the long term.

We may from time to time and at any time exchange or purchase Senior Notes in open market or privately negotiated transactions, opportunistically on terms that we believe to be favorable. These exchanges or purchases may be effected for cash (from cash and cash equivalents, borrowings under our Revolving Facility or new credit facilities, or proceeds from sale of debt or equity securities or assets), common stock or other equity or debt securities, or a combination thereof. We may at any time and from time to time seek and obtain consent from the lenders under the Senior Facilities with respect to any restrictions thereunder applicable to such transactions. We will evaluate any such transaction in light of then prevailing market conditions and our then current and prospective liquidity and capital resources, including projected and potential needs and prospects for access to capital markets. Any such transactions may, individually or in the aggregate, be material.

Our significant leverage and substantial antitrust related and other obligations could have a material impact on our liquidity, reducing funds available to us for other purposes and making us more vulnerable to economic downturns or changes in the expected amount or timing of payment of these obligations.

Our ability to service our debt as it comes due, including maintaining compliance with the financial covenants and the representations regarding absence of material adverse changes under the Senior Facilities, and to meet our debt service and other obligations as they come due is dependent on our future performance, which is subject to various factors, including certain factors beyond our control such as changes in conditions affecting our industry, changes in global and regional economic conditions, changes in interest and currency exchange rates, developments in antitrust investigations, lawsuits and claims involving us and inflation in raw material, energy and other costs. A failure to comply with such covenants, unless waived, would be a default under the Senior Facilities. This would permit the lenders to accelerate the maturity of the Senior Facilities and terminate their commitments to extend credit under the Revolving Facility. An acceleration of maturity of the Senior Facilities would permit the holders of the Senior Notes to accelerate the maturity of the Senior Notes and the holders of the Debentures to accelerate the maturity of the Debentures. If we were unable to repay our debt to the lenders and holders or otherwise obtain a waiver from the lenders and holders, the lenders and holders could proceed against the collateral securing the Senior Facilities and the Senior Notes, respectively, and exercise all other rights available to them, and we could be required to undertake significant actions (which may be inconsistent with our plans or adverse to our stockholders) to raise the funds necessary for repayment. We cannot assure you that we would be able to obtain any such waiver or take any of such actions on favorable terms or at all.

As described above, availability of funds under the Revolving Facility is subject to continuing compliance with the financial covenants under the Senior Facilities. The Senior Facilities require us to, among other things, comply with financial covenants relating to specified minimum interest coverage and maximum net senior secured debt leverage ratios that become more restrictive over time. At December 31, 2003, we were in compliance with the financial

covenants under the Senior Facilities. If we were to believe that we would not continue to comply with these covenants, we would seek an appropriate waiver or amendment from the lenders thereunder. We cannot assure you that we would be able to obtain such waiver or amendment on acceptable terms or at all.

At December 31, 2003, the Revolving Facility provided for maximum borrowings of up to €200 million (\$253 million, based on currency exchange rates in effect at December 31, 2003). It is possible that our future ability to borrow under the Revolving Facility could effectively be less because of the impact of additional borrowings upon our compliance with the maximum net senior secured debt leverage ratio permitted or minimum interest coverage ratio required under the Senior Facilities. At December 31, 2003, we had no outstanding balance under the Revolving Facility and \$236 million (after consideration of outstanding letters of credit and at currency exchange rates in effect at December 31, 2003) fully available thereunder.

We believe that the long term fundamentals of our business continue to be sound. Accordingly, although we cannot assure you that such will be the case, we believe that, based on our expected cash flow from operations, our expected resolution of our remaining obligations in connection with antitrust investigations, lawsuits and claims, and our existing capital resources, and taking into account our working capital needs and our efforts to reduce costs, improve efficiencies and product quality, generate growth and cash flow and maximize funds available to meet our debt service and other obligations, we will be able to manage our liquidity to permit us to service our debt and meet our obligations when due.

***Related Party Transactions.*** We have not, since January 1, 2001, engaged in or been a party to any material transactions with affiliates or related parties other than transactions with our subsidiaries (including Carbone Savoie and AET), compensatory transactions (including employee benefits, stock option and restricted stock grants, compensation deferral and executive employee loans and stock purchases) with directors or officers, and transactions with our 25% owned joint venture with Jilin in China.

***Off-Balance Sheet Arrangements and Commitments.*** We have not, since January 1, 2001, undertaken or been a party to any material off-balance-sheet financing arrangements or other commitments (including non-exchange traded contracts), other than:

- Commitments under non-cancelable operating leases that, at December 31, 2003 totaled less than \$3 million individually in each year and \$5 million in the aggregate, respectively.
- Minimum required purchase commitments under our information technology outsourcing services agreement with CGI described under “–Long-Term Contractual, Commercial and Other Obligations and Commitments” that, at December 31, 2003 totaled approximately \$5 million in each year and about \$38 million in the aggregate.
- Factoring accounts receivable as described under “– Cash Flow and Plans to Manage Liquidity.”

We have not been, since January 1, 2001, affiliated with or related to any special purpose entity other than GrafTech Finance.

**Cash Flows.** In general, during 2001, 2002 and 2003, we used cash in operating activities (including restructuring and antitrust-related payments) as well as for capital expenditures. Financing for these uses was provided primarily by net proceeds from our public offerings of common stock in 2001 and 2003, our incurrence of long-term and short-term debt, and proceeds from sales of non-strategic assets and interest rate swaps. We believe that we will have net cash provided by operating activities in 2004 (excluding payments related to restructurings, antitrust fines and the impact of the reduction of factoring of accounts receivables). We expect to make payments of about \$15 million related to restructurings, about \$82 million related to antitrust fines and about \$45 million related to replacement of financing that would have been provided by factoring of accounts receivable. We expect that we will have net cash used in operating activities in 2004 including such exclusions.

*Cash Flow (Used in) Provided by Operating Activities.* Cash flow used in operating activities was \$25 million in 2003 as compared to \$60 million in 2002, an improvement of \$35 million. Cash flow used in operating activities was \$60 million in 2002 as compared to cash flow provided by operating activities of \$17 million in 2001, a decline of \$77 million.

Cash used in operating activities was \$25 million in 2003. The primary uses consisted of \$36 million for working capital and \$10 million use for other liabilities offset by a source of cash of \$20 million from the net loss, after adding back the net effect from non-cash items. Working capital uses related to decreases in payables from timing of payment patterns and increases in inventories to support anticipated customer demand. Other liability uses were primarily for pension and postretirement benefits. Non-cash charges consisted of \$32 million related to antitrust investigations and related lawsuits and claims, \$31 million of depreciation amortization, \$27 million of restructuring charges and impairment losses, offset by other non-cash credits of \$46 million related primarily to currency exchange gains on euro-denominated intercompany loans.

Cash used in operating activities was \$60 million in 2002. The primary uses consisted of \$10 million of net loss (after excluding the net effect from non-cash items), \$38 million for working capital and \$12 million for other liabilities. Working capital uses primarily related to \$34 million relating to the mothballing of our Italian graphite electrode manufacturing operations, the shutdown of our U.S. graphite electrode manufacturing operations and the high level of accounts payable at December 31, 2001. Other liability uses were primarily for pension and postretirement benefit payments and contributions. Non-cash charges consisted of \$17 million of impairment losses and \$28 million of depreciation and amortization, offset by \$27 million of deferred tax credits and \$20 million relating primarily to currency exchange gains on euro-denominated intercompany loans.

Cash flow provided by operating activities was \$17 million in 2001. Sources resulted primarily from income from continuing operations and an increase in working capital. Net income after excluding the net effect from non-cash items was \$52 million in 2001. Working capital decreased \$32 million in 2001, primarily due to a \$21 million increase in inventories, an \$18 million increase in restructuring payments, and \$16 million in payments for antitrust



investigations and related lawsuits and claims, partially offset by a \$19 million reduction in accounts and notes receivables.

*Cash Flow Used in Investing Activities.* Cash flow used in investing activities was \$22 million in 2003 as compared to \$50 million in 2002 and \$39 million in 2001. Virtually all of such investing activities consisted of capital expenditures. Capital expenditures in 2003 were \$41 million, in 2002 were \$50 million and in 2001 were \$40 million. Capital expenditures in 2003 related primarily to the expansion of graphite electrode manufacturing capacity, implementation of J.D. Edwards information systems and essential capital maintenance. In 2003, \$16 million of cash was provided to investing activities, primarily from the sale of our non-strategic composite tooling business for \$16 million (including a \$1 million working capital adjustment).

We used \$50 million of cash flow in investing activities during 2002 as compared to \$39 million during 2001. Capital expenditures in 2002 related primarily to expansion of graphite electrode manufacturing capacity in Mexico, expansion of cathode manufacturing capacity in France, J.D. Edwards system implementation and essential maintenance. In 2001, we limited capital expenditures to installation of our advanced natural graphite production lines, and similar critical or strategic capital investments and essential maintenance.

*Cash Flow Provided by Financing Activities.* Cash flow provided by financing activities was \$69 million during 2003, \$79 million in 2002 and \$15 million in 2001. During 2003, we received net proceeds of \$190 million from the registered public offering of common stock and \$30 million from the sale of interest rate swaps. We used these proceeds primarily to repay term loans of \$116 million outstanding under the Senior Facilities, reduce the outstanding balance under the Revolving Facility and repay other short-term debt.

Cash flow provided by financing activities during 2002 was primarily attributable to \$557 million of proceeds from our sale of \$550 million of Senior Notes in 2002, of which \$392 million was used to repay other long term debt, \$86 million was used to repay borrowings under the Revolving Facility and \$21 million was used to pay financing costs. In addition, we received \$10 million from the sale of interest rate swaps.

During 2001, we received net proceeds of \$94 million, primarily from our public offering of common stock in July 2001. We also received \$9 million from an additional minority investment in connection with the broadening of our strategic alliance in the cathode business with Pechiney, and made \$96 million in debt repayments.

### **Restrictions on Dividends and Stock Repurchases**

Under the Senior Facilities, we are generally permitted to pay dividends on our common stock and repurchase our common stock in an aggregate annual amount of between \$25 million and \$50 million, depending on our leverage ratio and excess cash flow. Under the Senior Notes, we are generally permitted to pay dividends on our common stock and repurchase our common stock in an aggregate cumulative (from February 15, 2002) amount of \$25 million, plus certain consolidated net income, equity proceeds and investment gains. Under the Debentures,

dividends on our common stock and repurchases of our common stock may result in adjustments to the conversion rate applicable to the Debentures.

### Costs Relating to Protection of the Environment

We have been and are subject to increasingly stringent environmental protection laws and regulations. In addition, we have an on-going commitment to rigorous internal environmental protection standards. Environmental considerations are part of all significant capital expenditure decisions. The following table sets forth certain information regarding environmental expenses and capital expenditures.

	<u>For the Year Ended December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions)		
Expenses relating to environmental protection.....	\$12	\$10	\$13
Capital expenditures related to environmental protection .....	3	2	2

### Critical Accounting Policies

Critical accounting policies are those that require difficult, subjective or complex judgments by management, often as a result of the need to make estimates about the effect of matters that are inherently uncertain and may change in subsequent periods.

Our significant accounting policies are described in Note 2 to the Consolidated Financial Statements. Not all of these significant accounting policies require management to make difficult, subjective or complex judgments. However, the following accounting policies could be deemed to be critical.

**Reliance on Estimates.** In preparing the Consolidated Financial Statements, we use and rely on estimates in determining the economic useful lives of our assets, obligations under our employee benefit plans, provisions for doubtful accounts, provisions for restructuring charges and contingencies, tax valuation allowances, evaluation of goodwill and other intangible assets, pension and post-retirement benefit obligations and various other recorded or disclosed amounts. Estimates require us to use our judgment. While we believe that our estimates for these matters are reasonable, if the actual amount is significantly different than the estimated amount, our assets, liabilities or results of operations may be overstated or understated.

**Employee Benefit Plans.** We sponsor various retirement and pension plans, including defined benefit, defined contribution plans and post retirement benefit plans that cover most employees worldwide. Accounting for these plans requires assumptions as to the discount rate, expected return on plan assets, expected salary increases and health care cost trend rate. See Note 11 to the Consolidated Financial Statements for further detail on these rates and the effect of a change in these rates on our results of operations.

**Financial Instruments.** We are exposed to market risks primarily from changes in interest rates and currency exchange rates. We routinely enter into various transactions that have been authorized according to documented policies and procedures to manage well-defined currency exchange rate risks and interest rate risks. These transactions relate primarily to

financial instruments described under “Item 7A—Quantitative and Qualitative Disclosures about Market Risks.” Since the counterparties to these financial instruments are large commercial banks and similar financial institutions, we do not believe that we are exposed to material counterparty credit risk. We do not use financial instruments for trading purposes. Accounting for financial instruments requires us to make judgments about the value of those instruments at specified dates. While we believe that our estimates of values are reasonable, if the actual values are significantly different than the estimated values, our assets, liabilities or results of operations may be overstated or understated.

**Contingencies.** We account for contingencies by recording an estimated loss or gain from a loss or gain contingency when information available prior to issuance of the Consolidated Financial Statements indicates that it is probable that an asset has been impaired or a liability has been incurred or a gain has become receivable at the date of the Consolidated Financial Statements and the amount of the loss or gain can be reasonably estimated. Accounting for contingencies such as those relating to environmental, legal and income tax matters requires us to use our judgment. While we believe that our accruals for these matters are adequate, if the actual loss or gain from a contingency is significantly different from the estimated loss or gain, our results of operations may be overstated or understated.

**Impairments of Long-Lived Assets.** We record impairment losses on long-lived assets used in operations when events and circumstances indicate that the assets might be impaired and the discounted future cash flows estimated to be generated by those assets are less than the carrying amount of those assets. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to estimated future net cash flows to be generated by the asset. If the asset is considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds the estimated fair value of the asset. Assets to be disposed are reported at the lower of the carrying amount or fair value less estimated costs to sell. If the actual value is significantly less than the estimated fair value, our assets may be overstated.

**Inventories.** We record the value of inventories at the lower of cost or market, and periodically review the book value of products and product lines to determine if they are properly valued. We also periodically review the composition of our inventories and seek to identify slow-moving inventories. In connection with those reviews, we seek to identify products that may not be properly valued and assess the ability to dispose of them at a price greater than cost. If it is determined that cost is less than market value, then cost is used for inventory valuation. If a write down to current market value is necessary, the market value cannot be greater than the net realizable value, sometimes called the ceiling (defined as selling price less costs to complete and dispose), and cannot be lower than the net realizable value less a normal profit margin, sometimes called the floor. Generally, we do not experience issues with obsolete inventory due to the nature of our products. If the actual value is significantly less than the recorded value, our assets may be overstated.

**Accounting for Income Taxes.** When we prepare the Consolidated Financial Statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process requires us to make the following assessments:

- Estimate our actual current tax liability in each jurisdiction.
- Estimate our temporary differences resulting from differing treatment of items, such as lease revenue and related depreciation, for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which we include within our Consolidated Balance Sheets.
- Assess the likelihood that our deferred tax assets will be recovered from future taxable income and, if we believe that recovery is not likely, we establish a valuation allowance.

If our estimates are incorrect, our assets or liabilities may be overstated or understated.

### **Recent Accounting Pronouncements**

A description of recent accounting pronouncements is set forth under “New Accounting Standards” in Note 1 to the Notes to the Consolidated Financial Statements contained in this Report, and such description is incorporated herein by reference. Such description contains all of the information required with respect thereto.

### **Description of Our Financing Structure**

We have the following three principal long term debt instruments and arrangements outstanding:

- the Senior Facilities;
- the Senior Notes; and
- the Debentures.

GrafTech Finance, a direct wholly owned subsidiary of GTI, is the borrower and primary obligor under the Senior Facilities. The Senior Facilities have been guaranteed, on a senior secured basis, by GTI and our other domestic subsidiaries.

GrafTech Finance has loaned and is required to loan all of the proceeds of borrowings under the Revolving Facility (that is part of the Senior Facilities) to:

- our Swiss subsidiary under a secured intercompany revolving note that is guaranteed, on a senior secured basis, by most of our other principal foreign subsidiaries; or
- UCAR Carbon under an unsecured intercompany revolving note that is guaranteed, on an unsecured senior basis, by GTI and our other domestic subsidiaries.

GrafTech Finance’s obligations under the Senior Facilities are secured by first priority security interests in these intercompany revolving notes (including the related guarantees and security) and all of its other assets (other than unsecured intercompany term notes described below). The guarantees of the Senior Facilities by GTI and our other domestic subsidiaries are

secured, subject to certain limitations, by first priority security interests and pledges in all of the AET Pledged Stock, all of the outstanding capital stock of UCAR Carbon, GrafTech Finance and GrafTech Global, 65% of the outstanding shares of capital stock of our Swiss subsidiary and our other first-tier foreign subsidiaries, and all of the other assets of GTI and our other domestic subsidiaries. The intercompany revolving note of our Swiss subsidiary is secured by a pledge of all of its assets (including shares of capital stock of its first-tier foreign subsidiaries) and the guarantees of such intercompany revolving note are secured by pledges of assets of the foreign subsidiary guarantors. At December 31, 2003, the aggregate principal amount of such intercompany revolving note was nil.

GrafTech Finance is the issuer of and primary obligor under the Senior Notes. The Senior Notes have been guaranteed, on a senior unsecured basis, by GTI and our other domestic subsidiaries that collectively hold a substantial majority of our U.S. assets. GrafTech Finance loaned most of the proceeds from the sale of the Senior Notes to our principal foreign subsidiaries under unsecured intercompany term notes that are guaranteed, on an unsecured senior basis, by the same foreign subsidiaries that guarantee the secured intercompany revolving note of our Swiss subsidiary. GrafTech Finance's indebtedness under the Senior Notes is secured, subject to certain limitations, by first priority pledges of these unsecured intercompany term notes (including the related guarantees). The guarantee of the Senior Notes by UCAR Carbon is secured by a second priority pledge of the AET Pledged Stock. At December 31, 2003, the aggregate principal amount of these unsecured intercompany term notes was \$528 million (based on currency exchange rates in effect at December 31, 2003). The Senior Note Indenture contains a limitation that at no time will (i) the value of the pledged portion the AET Pledged Stock or (ii) the combined value of the pledged portion of any foreign subsidiary's unsecured intercompany term note and unsecured guarantee of unsecured intercompany term notes issued by other foreign subsidiaries exceed 19.99% of the principal amount of the then outstanding Senior Notes. As a result of such limitation, unsecured intercompany term notes of our foreign subsidiaries in an aggregate principal amount, at December 31, 2003, equal to \$162 million (based on currency exchange rates in effect at December 31, 2003), that would otherwise be subject to the pledge to secure the Senior Notes, are available to satisfy the claims of all creditors of GrafTech Finance (including the lenders under the Senior Facilities, the holders of the Senior Notes and, pursuant to the subsidiary guarantee of GrafTech Finance, the holders of the Debentures) as their respective interests may appear.

GTI is the issuer of and primary obligor under the Debentures. The Debentures have been guaranteed, on a senior unsecured basis, by GrafTech Finance and our other domestic subsidiaries that collectively hold a substantial majority of our U.S. assets. Except for a subsidiary that is being dissolved and liquidated, the obligors (including the guarantors) under the Senior Notes and the Debentures are the same.

GTI has no material assets other than all of the outstanding shares of capital stock of GrafTech Global and GrafTech Finance, its interest in the lawsuit initiated by us against our former parents, intercompany notes receivable by it from the subsidiary guarantors and \$57.5 million aggregate principal amount of Senior Notes previously acquired by GTI. GTI has no material liabilities or obligations other than the Debentures, the secured DOJ antitrust fine of \$52.5 million, the secured EU antitrust fine of €50.4 million, intercompany notes payable by it to

the subsidiary guarantors, its secured guarantee of the Senior Facilities, its unsecured guarantee of the Senior Notes, and certain guarantees of commercial obligations of its subsidiaries.

GrafTech Finance has no material assets other than intercompany notes receivable by it from GTI or our other subsidiaries, including those described above. GrafTech Finance has no material liabilities or obligations other than its secured indebtedness under the Senior Facilities and the Senior Notes, its unsecured guarantee of the Debentures and its obligations in connection with treasury, cash management, cash pooling and hedging activities for GTI and its other subsidiaries.

GrafTech Global, a direct wholly owned subsidiary of GTI, has no material assets other than all of the outstanding shares of capital stock of UCAR Carbon, its interest in the lawsuit initiated by us against our former parents and intercompany notes receivable by it from GTI and the other subsidiary guarantors. GrafTech Global has no material liabilities or obligations other than intercompany notes payable by it to GTI or the other subsidiary guarantors, its secured guarantee of the Senior Facilities, its unsecured guarantee of the Senior Notes and the Debentures and certain guarantees of commercial obligations of its subsidiaries.

UCAR Carbon, a directly wholly owned subsidiary of GrafTech Global, is our principal operating subsidiary in the U.S. All of our other subsidiaries are direct or indirect subsidiaries of UCAR Carbon. Our Swiss subsidiary is a direct wholly owned subsidiary of UCAR Carbon. Most of our other principal foreign operating subsidiaries are direct or indirect subsidiaries of our Swiss subsidiary. Union Carbide Grafito, Inc. is a direct, wholly owned, subsidiary of UCAR Carbon that holds certain real property in Puerto Rico adjacent to property on which one of GTI's graphite electrode manufacturing facilities was located. The facility was demolished in the 1990's. Graphite Electrode Network LLC is a direct, wholly owned, marketing subsidiary of UCAR Carbon created primarily to market graphite electrodes for specific market segments. UCAR Holdings V Inc. is a direct wholly owned subsidiary of UCAR Carbon which held and recently sold our composite tooling business and is being liquidated and dissolved.

***Description of Senior Facilities, Senior Notes and Debentures.*** A description of the Senior Facilities, the Senior Notes and the Debentures is set forth under "Long-Term Debt and Liquidity" in Note 5 to the Notes to the Consolidated Financial Statements contained in this Report, and such description is incorporated herein by reference. Such description contains all of the information required with respect thereto.

#### **Item 7A. Quantitative and Qualitative Disclosures About Market Risk**

We are exposed to market risks primarily from changes in interest rates, currency exchange rates and commercial energy rates. We routinely enter into various transactions that have been authorized according to documented policies and procedures to manage well-defined risks. These transactions relate primarily to financial instruments described below. Since the counterparties to these financial instruments are large commercial banks and similar financial institutions, we do not believe that we are exposed to material counterparty credit risk. We do not use financial instruments for trading purposes.

Our exposure to changes in interest rates results primarily from floating rate long-term debt tied to LIBOR or euro LIBOR. Our exposure to changes in currency exchange rates results primarily from:

- investments in and intercompany loans to our foreign subsidiaries and our share of the earnings of those subsidiaries, to the extent denominated in currencies other than local currencies;
- raw material purchases made by our foreign subsidiaries in currencies other than local currencies; and
- export sales made by our subsidiaries in currencies other than local currencies.

Our exposure to changes in energy costs results primarily from the purchase of natural gas and electricity for use in our manufacturing operations.

**Interest Rate Management.** We implement interest rate management initiatives to seek to minimize our interest expense and optimize the risk in our portfolio of fixed and variable interest rate obligations. Use of these initiatives is allowed under the Senior Notes and the Senior Facilities. We have interest rate swaps that effectively convert fixed rate debt (represented by the Senior Notes) into variable rate debt in order to seek to minimize interest expense. At December 31, 2003, we had swaps for a notional amount of \$485 million.

Our interest rate swaps are designated as hedging the exposure to changes in the fair value of the related debt (called a fair value hedge). The related debt for our swaps is the Senior Notes. Our swaps are marked-to-market monthly, and we are required to provide cash collateral to the counterparty to the extent that the fair value of the derivative exceeds \$15 million, net of market value of our interest rate caps. We may, at any time, exit our position in these swaps. The fair value of the hedge at the end of a period is recorded on the Consolidated Balance Sheets on the line entitled "fair value of hedged debt obligation." At December 31, 2003, the carrying value of our debt was reduced by \$18 million (excluding the offsetting value of our interest rate caps of \$4 million) as a result of our fair value hedge. The interest rate swap derivative was valued at \$18 million at December 31, 2003 and recorded as part of other long-term obligations on the Consolidated Balance Sheets. When we sell swaps, the gain or loss realized is amortized as a credit or charge to interest expense over the remaining term of the Senior Notes. When we effectively reduce the outstanding principal amount of the Senior Notes (through exchanges or otherwise), the related portion of such credit or charge is accelerated and recorded in the period in which such reduction occurs.

In the 2002 second quarter, we entered into \$250 million notional amount of swaps through the remaining term of the Senior Notes, effectively converting that amount of fixed rate debt to variable rate debt. In the 2002 third quarter, we sold the entire \$250 million notional amount of swaps for \$10 million in cash. In the 2002 fourth quarter, we entered into \$250 million notional amount of swaps through the remaining term of the Senior Notes. Interest rate swaps reduced our interest expense by \$6 million in 2002. The credits to interest expense for these periods due to amortization of the \$10 million proceeds for the sale of swaps was nominal. At December 31, 2002, the carrying value of our debt was increased by \$8 million as a result of

our fair value hedge. The interest rate swap derivative was valued at \$8 million at December 31, 2003 and is recorded as part of other long-term assets on the Consolidated Balance Sheets.

In the 2003 first quarter, we entered into an additional \$200 million notional amount of swaps (bringing our total notional amount of swaps to \$450 million) through the remaining term of the Senior Notes, effectively converting that amount of fixed rate debt to variable rate debt. Subsequently in the 2003 first quarter, we sold the entire \$450 million notional amount of swaps for \$10 million in cash. Following the sale of the swaps, in the 2003 first quarter, we entered into \$350 million notional amount of swaps through the remaining term of the Senior Notes. Subsequently, in the 2003 second quarter, we entered into an additional \$50 million notional amount of swaps (bringing our total notional amount of swaps to \$400 million). Subsequently in the 2003 second quarter, we sold the total notional amount of \$400 million of swaps for \$21 million in cash. In the 2003 third quarter, we entered into \$500 million notional amount of swaps for the remaining term of the Senior Notes. Subsequently in the 2003 third quarter, we sold \$15 million notional amount of swaps and paid \$1 million in cash. As a result, at December 31, 2003, we held \$485 million notional amount of swaps for the remaining term of the Senior Notes. Interest rate swaps reduced our interest expense by approximately \$13 million in 2003. In 2003, we realized net proceeds of \$30 million with respect to the sale of swaps, which will be amortized as a credit to interest expense over the remaining term of the Senior Notes. Such amortization amounted to \$2 million for the year ended December 31, 2003. The credit to interest expense for 2003 due to the acceleration of the amortization of cash proceeds from the sale of swaps as a result of our exchanges of common stock for Senior Notes was \$6 million.

We enter into agreements with financial institutions that are intended to limit, or cap, our exposure to the incurrence of additional interest expense due to increases in variable interest rates. In the 2003 first quarter, we entered into interest rate caps for a notional amount of \$300 million through August 2007. In the 2003 second quarter, we entered into additional interest rate caps for a notional amount of \$200 million through August 2007 (bringing our total notional amount of caps to \$500 million through August 2007). These instruments effectively cap our interest rate exposure (represented by the net impact of our swaps on the Senior Notes) to no greater than 428 basis points above the six-month LIBOR rate of 122 basis points at December 31, 2003. All of our interest rate caps are marked to market monthly. Gains and losses are recorded as unrealized gains and losses in other (income) expense, net, on the Consolidated Statements of Operations. Unrealized losses on caps amounted to \$1 million for 2003.

***Currency Rate Management.*** We enter into foreign currency instruments to attempt to manage exposure to changes in currency exchange rates. These foreign currency instruments, which include, but are not limited to, forward exchange contracts and purchased currency options, attempt to hedge global currency exposures, net, relating to euro-denominated debt and identifiable foreign currency receivables, payables and commitments held by our foreign and domestic subsidiaries. Forward exchange contracts are agreements to exchange different currencies at a specified future date and at a specified rate. Purchased foreign currency options are instruments which give the holder the right, but not the obligation, to exchange different currencies at a specified rate at a specified date or over a range of specified dates. The result is the creation of a range in which a best and worst price is defined, while minimizing option cost.



Forward exchange contracts and purchased currency options are carried at market value. All of these contracts mature within one year and are marked to market monthly. Gains and losses due to the recording of such contracts at fair value are recognized currently in other expense (income), net, on the Consolidated Statements of Operations. Unrealized gains and losses on outstanding foreign currency contracts were nil at December 31, 2001, a loss of \$3 million at December 31, 2002 and nil at December 31, 2003. The notional amount of these contracts at December 31, 2002 was \$56 million and nil at December 31, 2003. In 2003, we recorded a loss of \$7 million with respect to the instruments held during the course of the year. We had no such contracts outstanding at December 31, 2003; however, we may at any time purchase further instruments.

***Commercial Energy Rate Management.*** We have entered into short duration fixed rate purchase contracts with certain of our North American natural gas suppliers in order to mitigate seasonal increases in our natural gas costs. These contracts expire at the end of the 2004 first quarter. In addition, we have entered into natural gas hedge contracts, effectively fixing 100% of our direct and indirect natural gas cost exposure in North America (45% of direct worldwide exposure) through April 2004.

***Sensitivity Analysis.*** We used a sensitivity analysis to assess the potential effect of changes in currency exchange rates and interest rates for 2001, 2002 and 2003. Based on this analysis, a hypothetical 10% weakening or strengthening in the dollar across all other currencies would have changed our reported gross margin for 2001 by about \$12 million, 2002 by about \$4 million and 2003 by about \$3 million. In addition, based on this analysis, a hypothetical increase in interest rates of 100 basis points across all maturities would have increased our interest expense (excluding the impact of any hypothetical interest rate swaps) for 2001, 2002 and 2003 by about \$7 million.

**Item 8. Financial Statements and Supplementary Data**

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See the Table of Contents located at the beginning of this Report for more detailed page references to information contained in this Item.

## Independent Auditors' Report

To the Board of Directors and Stockholders  
GrafTech International Ltd.  
Wilmington, Delaware

We have audited the accompanying consolidated balance sheets of GrafTech International Ltd. (formerly UCAR International Inc.) and subsidiaries (the "Company") as of December 31, 2002 and 2003, and the related consolidated statements of operations, cash flows and stockholders' deficit for each of the three years in the period ended December 31, 2003. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2002 and 2003, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 2 to the consolidated financial statements, the Company adopted Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets*, effective January 1, 2002.

/s/ Deloitte & Touche LLP

Philadelphia, Pennsylvania  
March 12, 2004

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
(Dollars in millions, except per share data)

	<u>2002</u>	<u>At December 31,</u> <u>2003</u>
<b>ASSETS</b>		
Current Assets:		
Cash and cash equivalents.....	\$ 11	\$ 34
Accounts and notes receivable, net .....	104	126
Inventories:		
Raw materials and supplies .....	39	47
Work in process .....	102	123
Finished goods .....	30	34
	<u>171</u>	<u>204</u>
Prepaid expenses (including deferred income taxes) .....	21	24
Assets of discontinued operations .....	14	-
Total current assets .....	<u>321</u>	<u>388</u>
Property, plant and equipment .....	995	1,032
Less: accumulated depreciation .....	695	691
Net fixed assets .....	300	341
Deferred income taxes .....	171	176
Goodwill .....	15	20
Other assets .....	52	42
Total assets .....	<u>\$ 859</u>	<u>\$ 967</u>
<b>LIABILITIES AND STOCKHOLDERS' DEFICIT</b>		
Current liabilities:		
Accounts payable .....	\$ 105	\$ 98
Short-term debt .....	18	1
Accrued income and other taxes .....	23	31
Other accrued liabilities .....	57	164
Liabilities of discontinued operations .....	3	-
Total current liabilities .....	<u>206</u>	<u>294</u>
Long-term debt:		
Carrying value .....	699	516
Fair value of hedged debt obligation .....	8	(18)
Unamortized bond premium .....	6	4
Total long-term debt .....	<u>713</u>	<u>502</u>
Other long-term obligations .....	258	225
Deferred income taxes .....	33	43
Minority stockholders' equity in consolidated entities .....	30	31
Commitments & contingencies .....	-	-
Stockholders' deficit:		
Preferred stock, par value \$.01, 10,000,000 shares authorized, none issued .....	-	-
Common stock, par value \$.01, 100,000,000 shares authorized at December 31, 2002, 150,000,000 shares authorized at December 31, 2003, 59,211,664 shares issued at December 31, 2002, 96,402,287 shares issued at December 31, 2003 .....	1	1
Additional paid-in capital .....	636	893
Accumulated other comprehensive loss .....	(304)	(286)
Accumulated deficit .....	(620)	(644)
Less: cost of common stock held in treasury, 2,542,539 shares at December 31, 2002, 2,451,035 shares at December 31, 2003 .....	(88)	(86)
Common stock held in employee benefit trusts, 426,400 shares at December 31, 2002, 503,232 shares at December 31, 2003 .....	(6)	(6)
Total stockholders' deficit .....	<u>(381)</u>	<u>(128)</u>
Total liabilities and stockholders' deficit .....	<u>\$ 859</u>	<u>\$ 967</u>

See accompanying Notes to Consolidated Financial Statements

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(Dollars in millions, except per share data)

	<u>For the Year Ended December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
Net sales.....	\$ 634	\$ 596	\$ 712
Cost of sales.....	455	461	544
Gross profit.....	179	135	168
Research and development .....	12	13	11
Selling, administrative and other expenses .....	75	81	85
Restructuring charges .....	12	6	20
Impairment loss on long-lived and other assets .....	80	17	7
Antitrust investigations and related lawsuits and claims .....	10	—	32
Other (income) expense, net .....	3	(9)	(12)
Interest expense .....	60	60	45
	252	168	188
Loss from continuing operations before provision for (benefit from)			
income taxes and minority interest.....	(73)	(33)	(20)
Provision for (benefit from) income taxes .....	14	(16)	5
Loss from continuing operations before minority interest .....	(87)	(17)	(25)
Less: minority stockholders' share of income.....	2	2	1
Loss from continuing operations.....	(89)	(19)	(26)
Income from discontinued operations, net of tax .....	2	1	1
Gain on sale of discontinued operations, net of tax.....	—	—	1
Net loss .....	\$ (87)	\$ (18)	\$ (24)
<u>Basic:</u>			
Loss from continuing operations .....	\$ (1.79)	\$ (0.35)	\$ (0.38)
Income from discontinued operations.....	0.04	0.02	0.02
Net loss per share.....	\$ (1.75)	\$ (0.33)	\$ (0.36)
<u>Diluted:</u>			
Loss from continuing operations .....	\$ (1.79)	\$ (0.35)	\$ (0.38)
Income from discontinued operations.....	0.04	0.02	0.02
Net loss per share.....	\$ (1.75)	\$ (0.33)	\$ (0.36)

See accompanying Notes to Consolidated Financial Statements

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

(Dollars in millions, except per share data)

	<u>For the Year Ended December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
Cash flow from operating activities:			
Net loss .....	\$ (87)	\$ (18)	\$ (24)
Income from discontinued operations, net of tax .....	2	1	1
Gain on sale of discontinued operations, net of tax .....	—	—	1
Loss from continuing operations .....	(89)	(19)	(26)
Non-cash (credits) charges to net loss:			
Depreciation and amortization .....	35	28	31
Deferred income taxes .....	(9)	(27)	2
Antitrust investigations and related lawsuits and claims .....	10	—	32
Restructuring charges .....	12	6	20
Impairment loss on long-lived and other assets .....	80	17	7
Restricted stock vesting .....	—	5	—
Other non-cash charges .....	13	(20)	(46)
Working capital* .....	(32)	(38)	(36)
Long-term assets and liabilities .....	(6)	(12)	(10)
Net cash provided by (used in) operating activities from continuing operations .....	14	(60)	(26)
Net cash provided by operating activities from discontinued operations .....	3	—	1
Net cash provided by (used in) operating activities .....	17	(60)	(25)
Cash flow from investing activities:			
Capital expenditures .....	(40)	(50)	(41)
Purchase of investment .....	(2)	—	—
Proceeds from sale of assets .....	3	—	3
Proceeds from sale of discontinued operations .....	—	—	16
Net cash used in investing activities .....	(39)	(50)	(22)
Cash flow from financing activities:			
Short-term debt (payments) borrowings, net .....	3	11	(19)
Revolving Facility (payments) borrowings, net .....	7	(86)	(10)
Long-term debt borrowings .....	2	557	—
Long-term debt reductions .....	(96)	(392)	(116)
Investment received from minority stockholder .....	9	—	—
Debt financing costs .....	(4)	(21)	(1)
Proceeds from sale of interest rate swaps, net .....	—	10	30
Purchase of interest rate caps .....	—	—	(5)
Net proceeds from sale of common stock .....	94	1	190
Proceeds from exercise of stock options .....	—	—	4
Dividends paid to minority stockholder .....	—	(1)	(4)
Net cash provided by financing activities .....	15	79	69
Net increase (decrease) in cash and cash equivalents .....	(7)	(31)	22
Effect of exchange rate changes on cash and cash equivalents .....	(2)	4	1
Cash and cash equivalents at beginning of period .....	47	38	11
Cash and cash equivalents at end of period .....	<u>\$ 38</u>	<u>\$ 11</u>	<u>\$ 34</u>
Supplemental disclosures of cash flow information:			
Net cash paid during the year for:			
Interest .....	\$ 56	\$ 48	\$ 61
Income taxes .....	25	24	11

\*Net change in working capital due to the following components:

(Increase) decrease in current assets:			
Accounts and notes receivable, net .....	19	(6)	(4)
Inventories .....	(21)	11	(9)
Prepaid expenses and other current assets .....	—	(2)	—
Payments for antitrust investigations and related lawsuits and claims .....	(16)	(3)	(4)
Restructuring payments .....	(18)	(4)	(5)
Increase (decrease) in payables and accruals .....	4	(34)	(14)
Working capital .....	<u>\$ (32)</u>	<u>\$ (38)</u>	<u>\$ (36)</u>

See accompanying Notes to Consolidated Financial Statements

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIT**

(Dollars in millions, except share data)

	Issued Shares of Common Stock	Common Stock	Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Unearned Restricted Stock	Treasury Stock	Common Stock Held in Employee Benefit Trust	Total Stockholders' Deficit
<b>Balance at January 1, 2001</b> .....	47,485,443	\$ -	\$ 525	\$ (241)	\$ (515)	\$ (85)	\$ -	\$ (316)
Comprehensive income (loss):								
Net loss .....	-	-	-	-	-	-	-	(87)
Other comprehensive income:								
Recognized loss on available-for-sale securities .....	-	-	-	-	-	-	-	-
Foreign currency translation adjustments .....	-	-	-	1	-	-	-	1
Total comprehensive income (loss) .....	-	-	-	(29)	-	-	-	(29)
Sale of 2.5% equity interest in AET .....	-	-	-	(28)	(87)	-	-	(115)
Common stock issued to employee benefit trust .....	-	-	4	-	-	-	-	4
Sale of common stock, net .....	11,138,270	1	6	-	-	-	(6)	-
<b>Balance at December 31, 2001</b> .....	58,623,713	\$ 1	\$ 629	\$ (269)	\$ (602)	\$ (85)	\$ (6)	\$ 95
Comprehensive loss:								
Net loss .....	-	-	-	-	(18)	-	-	(18)
Other comprehensive loss:								
Minimum pension liability, net of tax .....	-	-	-	(15)	-	-	-	(15)
Foreign currency translation adjustments .....	-	-	-	(20)	-	-	-	(20)
Total comprehensive income (loss) .....	-	-	-	(35)	(18)	-	-	(53)
Issuance of restricted stock .....	412,200	-	6	-	(6)	-	-	-
Amortization of restricted stock .....	-	-	-	-	1	-	-	1
Accelerated vesting of restricted stock .....	-	-	-	-	5	-	-	5
Sale of common stock under stock options .....	175,751	-	1	-	-	-	-	1
Repurchase of treasury stock .....	-	-	-	-	-	(3)	-	(3)
<b>Balance at December 31, 2002</b> .....	59,211,664	\$ 1	\$ 636	\$ (304)	\$ (620)	\$ (88)	\$ (6)	\$ (381)
Comprehensive loss:								
Net loss .....	-	-	-	-	(24)	-	-	(24)
Other comprehensive loss:								
Minimum pension liability, net of tax .....	-	-	-	6	-	-	-	6
Foreign currency translation adjustments .....	-	-	-	12	-	-	-	12
Total comprehensive income (loss) .....	-	-	-	18	(24)	-	-	(6)
Senior notes for common stock exchange .....	9,888,870	-	57	-	-	-	-	57
Treasury stock .....	-	-	(2)	-	-	2	-	-
Common stock issued to savings and pension plan trusts .....	1,403,475	-	8	-	-	-	-	8
Sale of common stock in equity offering, net .....	25,300,000	-	190	-	-	-	-	190
Sale of common stock under stock options .....	598,278	-	4	-	-	-	-	4
<b>Balance at December 31, 2003</b> .....	96,402,287	\$ 1	\$ 893	\$ (286)	\$ (644)	\$ (86)	\$ (6)	\$ (128)

See accompanying Notes to Consolidated Financial Statements

## GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### (1) Discussion of Business and Structure

Our businesses are organized around three lines of business:

- a synthetic graphite line of business, which primarily serves the steel, aluminum, transportation and semiconductor industries and includes graphite electrodes, cathodes and other advanced synthetic graphite products as well as related services;
- a natural graphite line of business, which primarily serves the automotive, petrochemical, electronics and power generation industries and includes advanced flexible graphite and flexible graphite as well as related services; and
- an advanced carbon materials line of business, which primarily serves the silicon metal and ferro-alloy industries and includes carbon electrodes and refractories.

#### *Important Terms*

We use the following terms to identify various matters. These terms help to simplify the presentation of the information in these Notes.

**“AET”** refers to Advanced Energy Technology Inc. only. AET is our 97.5% owned subsidiary engaged in the development, manufacture and sale of natural graphite products. Prior to January 1, 2003, AET was named Graftech Inc.

**“Carbone Savoie”** refers to Carbone Savoie S.A.S. and its subsidiaries. Carbone Savoie is our 70% owned subsidiary engaged in the development, manufacture and sale of cathodes.

**“Debentures”** mean our 1 5/8% convertible senior debentures due 2024, which were issued under an Indenture dated January 22, 2004 (the **“Debenture Indenture”**).

**“GrafTech Finance”** refers to GrafTech Finance Inc. only. GrafTech Finance is a direct, wholly owned, special purpose finance subsidiary of GTI and the borrower under our principal senior secured bank credit facilities (as amended, the **“Senior Facilities”**), which includes our principal revolving credit facility (the **“Revolving Facility”**). GrafTech Finance is the issuer of the Senior Notes and a guarantor of the Debentures. Prior to June 7, 2002, GrafTech Finance was named UCAR Finance Inc.

**“GrafTech Global”** refers to GrafTech Global Enterprises Inc. only. GrafTech Global is a direct, wholly owned subsidiary of GTI and the direct or indirect holding company for all of our operating subsidiaries. GrafTech Global is a guarantor of the Senior Notes, the Debentures and the Senior Facilities. Prior to June 7, 2002, GrafTech Global Enterprises Inc. was named UCAR Global Enterprises Inc.



**"GTI"** refers to GrafTech International Ltd. only. GTI is our public parent company and the issuer of the Debentures and our publicly traded common stock and the related preferred share purchase rights registered under the Exchange Act and listed on the NYSE. GTI is a guarantor of the Senior Notes and the Senior Facilities. Prior to our Annual Meeting of Stockholders for 2002, GTI was named UCAR International Inc.

**"Senior Notes"** means our 10.25% senior notes due 2012, which were issued under an Indenture dated February 15, 2002 (as supplemented, the **"Senior Note Indenture"**).

**"Subsidiaries"** refers to those companies that, at the relevant time, are or were majority owned or wholly owned directly or indirectly by GTI or its predecessors to the extent that those predecessors' activities related to the graphite and carbon business. All of GTI's subsidiaries have been wholly owned (with de minimis exceptions in the case of certain foreign subsidiaries) from at least January 1, 2000 through December 31, 2003, except for:

- Carbone Savoie, which has been and is 70% owned; and
- AET, which was 100% owned until it became 97.5% owned in June 2001.

Our 100% owned Brazilian cathode manufacturing operations were contributed to Carbone Savoie and, as a result, became 70% owned on March 31, 2001.

**"UCAR Carbon"** refers to UCAR Carbon Company Inc. only. UCAR Carbon is our wholly owned subsidiary through which we conduct most of our U.S. operations. UCAR Carbon is a guarantor of the Senior Notes, the Debentures and the Senior Facilities.

**"We," "us" or "our"** refers to GTI and its subsidiaries collectively or, if the context so requires, GTI, GrafTech Global or GrafTech Finance, individually.

## **(2) Summary of Significant Accounting Policies**

The Consolidated Financial Statements include the financial statements of GTI and its majority-owned subsidiaries. All significant intercompany transactions have been eliminated in consolidation.

### *Cash Equivalents*

Cash equivalents consist of overnight repurchase agreements and certificates of deposit with an initial term of less than three months. For purposes of the Consolidated Statements of Cash Flows, we consider all highly liquid debt instruments with original maturities of three months or less to be cash equivalents.

### *Investments*

Investments in marketable debt and equity securities are generally classified and accounted for as investment, held-to-maturity or available-for-sale securities. We determine the appropriate classification of debt and equity securities at the time of purchase and reassess the

classification at each reporting date. Debt securities classified as held-to-maturity are reported at amortized cost plus accrued interest. Securities classified as available-for-sale are reported at fair value with unrealized gains and losses, net of related tax, recorded as a separate component of comprehensive loss on the Consolidated Statement of Stockholders' Deficit until realized. Interest and amortization of premiums and discounts for debt securities are included in interest expense. Gains and losses on securities sold are determined based on the specific identification method and are included in other (income) expense, net. Unrealized losses on investment securities that are other than temporary are recognized in net income (loss). We do not hold securities for speculative or trading purposes.

### *Revenue Recognition*

Sales of our products and technology are recognized when persuasive evidence of an arrangement exists, delivery has occurred, title has passed, the revenue amount is determinable and collection is reasonably assured. Licenses of technology are recognized over the term of the license agreements. Revenue from service transactions is recognized when service is rendered.

### *Inventories*

Inventories are stated at cost or market, whichever is lower. Cost is determined on the "first-in first-out" ("FIFO") or the "average cost" method.

### *Fixed Assets and Depreciation*

Fixed assets are carried at cost. Expenditures for replacements are capitalized and the replaced assets are retired. Gains and losses from the sale of property are included in other (income) expense, net.

Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets. We generally use accelerated depreciation methods for tax purposes, where appropriate.

The average estimated useful lives are as follows:

	<u>Years</u>
Buildings .....	25
Land improvements .....	20
Machinery and equipment .....	20
Furniture and fixtures .....	10
Transportation equipment.....	6

The carrying value of fixed assets is assessed when events and circumstances indicating impairment are present. We determine such impairment by measuring undiscounted estimated future cash flows. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of the assets to future net cash flows expected to be generated by the assets. If the assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. At December 31, 2003, accumulated depreciation included about \$223 million related to previously

impaired long-lived assets. Assets to be disposed are reported at the lower of the carrying amount or fair value less costs to sell. We capitalized \$1 million of interest expense in 2002 and 2003.

#### *Derivative Financial Instruments*

Effective January 1, 2001, we adopted Statement of Financial Accounting Standards ("SFAS") No. 133, "Accounting for Derivative Instruments and Hedging Activities," as amended by SFAS No. 137, SFAS No. 138 and SFAS No. 149. The adoption did not have a significant impact on our consolidated financial position or results of operations. We do not use derivative financial instruments for trading purposes. They are used to manage well-defined currency exchange rate risks, interest rate risks and commercial energy contract risks.

We enter into foreign currency instruments to manage exposure to changes in currency exchange rates. These instruments, which include, but are not limited to, forward exchange contracts and purchased currency options, attempt to hedge global currency exposures, net, relating to euro-denominated debt and identifiable foreign currency receivables, payables and commitments held by our foreign and domestic subsidiaries. Forward exchange contracts are agreements to exchange different currencies at a specified future date and at a specified rate. Purchased foreign currency options are instruments which give the holder the right, but not the obligation, to exchange different currencies at a specified rate at a specified date or over a range of specified dates. The result is the creation of a range in which a best and worst price is defined, while minimizing option cost. Forward exchange contracts and purchased currency options are carried at market value. All of these contracts mature within one year and are marked to market monthly. Gains and losses due to the recording of such contracts at fair value are recognized currently in other expense (income), net, on the Consolidated Statements of Operations.

We implement interest rate management initiatives to seek to minimize our interest expense and optimize the risk in our portfolio of fixed and variable interest rate obligations. Use of these initiatives is allowed under the Senior Notes and the Senior Facilities. We have interest rate swaps that effectively convert fixed rate debt (represented by the Senior Notes) into variable rate debt.

We enter into agreements with financial institutions that are intended to limit, or cap, our exposure to the incurrence of additional interest expense due to increases in variable interest rates. All of our interest rate caps are marked to market monthly. Gains and losses are recorded as unrealized gains and losses in other (income) expense, net, on the Consolidated Statements of Operations.

Since the counterparties to these financial instruments are large commercial banks and similar financial institutions, we do not believe that we are exposed to material counterparty credit risk.

We have entered into certain short duration fixed rate natural gas purchase contracts in order to mitigate seasonal increases in our natural gas costs. In addition, we have entered into natural gas hedge contracts to effectively fix a portion of our natural gas cost exposure. Natural gas contracts are marked-to-market monthly. Gains and losses are recorded as part of cost of sales on the Consolidated Statements of Operations.

## *Research and Development*

Research and development costs are charged to expense as incurred.

## *Income Taxes*

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and for operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rate is recognized in the period that includes the enactment date. A valuation allowance is recorded when it is determined that it is more likely than not that any portion of a recorded deferred tax asset will not be realized.

## *Stock-Based Compensation Plans*

We account for stock-based compensation plans using the intrinsic value method prescribed by Accounting Principles Board Opinion ("APB") No. 25, "Accounting for Stock Issued to Employees." As such, compensation expense is recorded on the date of award only if the market price of the underlying stock exceeded the exercise price or if ultimate vesting is subject to performance conditions. If an award results in recordable compensation expense, the total amount of recorded compensation expense is based on the number of awards that eventually vest. No compensation expense is recognized for forfeited awards, including awards forfeited due to a failure to satisfy a service requirement or failure to satisfy a performance condition. Our accruals of compensation expense for awards subject to performance conditions are based on our assessment of the probability of satisfying the performance conditions.

No compensation expense has been recognized for our time vesting options granted with exercise prices at not less than market price on the date of grant. At December 31, 2003, all awards subject to performance conditions were fully vested. If compensation expense for our stock-based compensation plans was determined by the fair value method prescribed by SFAS No. 123, "Accounting for Stock Based Compensation," our net loss and net loss per share would have been reduced to the pro forma amounts indicated below:

	<u>For the Year Ended December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions, except per share data)		
Net loss as reported.....	\$ (87)	\$ (18)	\$ (24)
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects .....	<u>(5)</u>	<u>(6)</u>	<u>(1)</u>
Pro forma net loss .....	\$ <u>(92)</u>	\$ <u>(24)</u>	\$ <u>(25)</u>
Loss per share:			
Basic—as reported.....	\$(1.75)	\$(0.33)	\$(0.36)
Basic—pro forma .....	(1.85)	(0.43)	(0.37)

Diluted—as reported.....	(1.75)	(0.33)	(0.36)
Diluted—pro forma .....	(1.85)	(0.43)	(0.37)

### *Retirement Plans*

The cost of pension benefits under our retirement plans is recorded in accordance with SFAS No. 87, “Employee Accounting for Pensions,” as determined by independent actuarial firms using the “projected unit credit” actuarial cost method. Contributions to the qualified U.S. retirement plan are made in accordance with the requirements of the Employee Retirement Income Security Act of 1974. Benefits under the non-qualified retirement plan have been accrued, but not funded. Plan settlements and curtailments are recorded in accordance with SFAS No. 88, “Employers’ Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and Termination Benefits.” Effective March 2003, we froze our qualified defined benefit plan for our remaining U.S. employees and closed our non-qualified U.S. defined benefit plan for the participating salaried workforce. The closure and settlement of our non-qualified U.S. defined benefit plan resulted in a \$11 million restructuring charge in the 2003 first quarter. We started a new defined contribution plan on January 1, 2002 for U.S. employees.

### *Postretirement Health Care and Life Insurance Benefits*

The estimated cost of future postretirement medical and life insurance benefits is determined by independent actuarial firms using the “projected unit credit” actuarial cost method. Such costs are recognized as employees render the service necessary to earn the postretirement benefits. Benefits have been accrued, but not funded. Effective November 1, 2001, the U.S. plan was modified to limit our cost of future annual postretirement medical benefits to the cost in 2001. Effective March 31, 2003, we discontinued the Medicare supplement plan (for retirees 65 years or older or those eligible for Medicare benefits). This change applies to all active employees except for some employees covered by a collective bargaining agreement, all current retirees who were not covered by a collective bargaining agreement when they retired and those retirees who retired under a former collective bargaining agreement. In June 2003, we announced the termination of the early retiree medical plan for retirees under age 65, effective December 31, 2005. In addition, we will limit the amount of retiree’s life insurance after December 31, 2004. These modifications are accounted for prospectively.

### *Environmental, Health and Safety Matters*

Our operations are governed by laws addressing protection of the environment and worker safety and health. These laws provide for civil and criminal penalties and fines, as well as injunctive and remedial relief, for noncompliance and require remediation at sites where hazardous substances have been released into the environment.

We have been in the past, and may become in the future, the subject of formal or informal enforcement actions or proceedings regarding noncompliance with these laws or the remediation of company-related substances released into the environment. Historically, such matters have been resolved by negotiation with regulatory authorities resulting in commitments to compliance, abatement or remediation programs and in some cases payment of penalties.

Historically, neither the commitments undertaken nor the penalties imposed on us have been material.

Environmental considerations are part of all significant capital expenditure decisions. Environmental remediation, compliance and management expenses were approximately \$12 million in 2001, \$10 million in 2002 and \$13 million in 2003. The accrued liability relating to environmental remediation was \$5 million at December 31, 2002 and \$6 million at December 31, 2003. A charge to income is recorded when it is probable that a liability has been incurred and the cost can be reasonably estimated. Our environmental liabilities do not take into consideration possible recoveries of insurance proceeds. Because of the uncertainties associated with environmental remediation activities at sites where we may be potentially liable, future expenses to remediate sites could be considerably higher than the accrued liability. However, while neither the timing nor the amount of ultimate costs associated with known environmental remediation matters can be determined at this time, management does not believe that these matters will have a material adverse effect on our financial position.

#### *Post-employment Benefits*

We accrue the estimated cost of post-employment benefits expected to be paid before retirement, principally severance, over employees' active service periods.

#### *Use of Estimates*

We have made a number of estimates and assumptions relating to the recording and disclosure of assets and liabilities, including contingent assets and liabilities, to prepare the Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America. Actual amounts and values could differ from those estimates.

#### *Reclassification*

Certain amounts previously reported have been reclassified to conform to the current year presentation.

#### *Foreign Currency Translation*

Generally, except for operations in Russia where high inflation has existed, unrealized gains and losses resulting from translation of the financial statements of our foreign subsidiaries from their functional currencies into dollars are accumulated in other comprehensive income on the Consolidated Balance Sheets until such time as the operations are sold or substantially or completely liquidated. Translation gains and losses relating to operations, where high inflation has existed, are included in other (income) expense, net, on the Consolidated Statements of Operations. Our Mexican subsidiary uses the dollar as its functional currency because its sales and purchases are predominantly dollar-denominated. We have intercompany loans between GrafTech Finance and some of our subsidiaries. Some of these loans are denominated in currencies other than the dollar and, accordingly, are subject to translation gains and losses due to changes in currency exchange rates. Some of these intercompany loans are deemed to be essentially permanent and, as a result, translation gains and losses on these loans are reflected in accumulated other comprehensive loss. The remaining intercompany loans are expected to be

repaid in the foreseeable future and, as a result, translation gains and losses on these loans are reflected in other (income) expense, net. Translation gains and losses on these intercompany loans amounted to a \$35 million gain in 2002 and a \$48 million gain in 2003 recorded in accumulated other comprehensive loss, and a \$4 million loss in 2001, a \$21 million gain in 2002 and a \$39 million gain in 2003 recorded in other (income) expense, net.

### *Goodwill*

Goodwill represents the excess of the purchase price over the fair value of net assets acquired and amounted to \$15 million at December 31, 2002 and \$20 million at December 31, 2003. Prior to January 1, 2002, goodwill was amortized on a straight-line basis over the expected periods to be benefited, generally 20 years. Effective January 1, 2002, we adopted SFAS No. 142, "Goodwill and Other Intangible Assets." The adoption of SFAS No. 142 did not have a significant impact on our consolidated financial position or results of operations, except that we no longer amortize goodwill. Goodwill amortization was \$2 million in 2001. We have performed the goodwill impairment reviews required by SFAS No. 142 and the results of these reviews did not require our existing goodwill to be written down.

	<u>For the Year Ended December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions, except per share data)		
Reported net income (loss) .....	\$ (87)	\$ (18)	\$ (24)
Add back: Goodwill amortization (net of tax) .....	<u>1</u>	<u>-</u>	<u>-</u>
Adjusted net income .....	\$ <u>(86)</u>	\$ <u>(18)</u>	\$ <u>(24)</u>
Basic earnings per share:			
Reported net income (loss) .....	\$ (1.75)	\$ (0.33)	\$ (0.36)
Goodwill amortization (net of tax) .....	<u>0.03</u>	<u>-</u>	<u>-</u>
Adjusted net income .....	\$ <u>(1.72)</u>	\$ <u>(0.33)</u>	\$ <u>(0.36)</u>
Diluted earnings per share:			
Reported net income (loss) .....	\$ (1.75)	\$ (0.33)	\$ (0.36)
Goodwill amortization (net of tax) .....	<u>0.03</u>	<u>-</u>	<u>-</u>
Adjusted net income .....	\$ <u>(1.72)</u>	\$ <u>(0.33)</u>	\$ <u>(0.36)</u>

### *Impairment review*

Periodically, we assess the carrying value of our long-lived and intangible assets. Our assessment involves comparing the carrying value of the asset on our Consolidated Balance Sheets to the cash flows we expect to generate in the future from that asset. We forecast the cash flows based on our assessment of our business. If the expected cash flows are less than the asset's carrying value, we record an impairment loss on the asset.

At December 31, 2003, there were no additional impairments required that we have not already recorded in our Consolidated Statements of Operations. However, future events and circumstances, some of which are described below, may result in an impairment charge:

- new technological developments that provide significantly enhanced benefits over our

current technology;

- significant negative economic or industry trends;
- changes in our business strategy that alter the expected usage of the related assets;
- significant increases or decreases in our cost of capital; and
- future economic results that are below our expectations used in the current assessments.

#### *New Accounting Standards*

In December 2003, the Financial Accounting Standards Board (“FASB”) issued SFAS No. 132 (revised 2003), “Employers’ Disclosures about Pensions and Other Postretirement Benefits – an amendment of FASB Statements No. 87, 88 and 106.” SFAS No. 132 replaces existing FASB disclosure requirements for pensions and requires additional disclosures about the assets, obligations, cash flows and net periodic benefit costs of defined benefit pension plans and other defined benefit postretirement plans. SFAS No. 132 was initiated by FASB in response to concerns raised by investors and other users of financial statements about the need for greater transparency as to pension information. SFAS No. 132 is effective for fiscal years ending after December 15, 2003 and for the first fiscal quarter of the year following initial application of the annual disclosure requirements. The adoption of SFAS No. 132 as revised did not have a significant impact on our consolidated results of operations or financial position because the impact was limited to additional disclosure.

In May 2003, FASB issued SFAS No. 150, “Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity.” SFAS No. 150 establishes standards for the classification and measurement of certain financial instruments with characteristics of both liabilities and equity. SFAS No. 150 requires that an issuer classify a financial instrument that is within its scope as a liability or, in some circumstances, as an asset, with such financial instruments having been previously classified as equity. SFAS No. 150 is effective for financial instruments entered into or modified after May 31, 2003, and otherwise effective at the beginning of the first interim period beginning after June 15, 2003. The adoption of SFAS No. 150 did not have a significant impact on our consolidated results of operations or financial position, as we had no financial instruments which met these requirements. FASB is addressing certain implementation issues associated with the application of SFAS No. 150. On October 29, 2003, FASB decided to defer certain provisions of SFAS No. 150 related to mandatorily redeemable financial instruments representing noncontrolling interests in subsidiaries included in consolidated financial statements. We will monitor the actions of FASB and assess the impact, if any, that these actions may have on the Consolidated Financial Statements.

In April 2003, FASB issued SFAS No. 149 “Amendment of Statement 133 on Derivative Instruments and Hedging Activities.” SFAS No. 149 amends and clarifies accounting for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities under SFAS No. 133. SFAS No. 149 is effective for contracts entered into



or modified, and for hedging relationships designated, after June 30, 2003. Other provisions of SFAS No. 149 that related to SFAS No. 133 implementation issues should continue to be applied in accordance with their respective dates. The adoption of SFAS No. 149 did not have a significant impact on our consolidated results of operations or financial position.

In December 2002, FASB issued SFAS No. 148 "Accounting for Stock-Based Compensation – Transition and Disclosure." SFAS No. 148 amends SFAS No. 123, "Accounting for Stock-Based Compensation," to provide alternative methods of transition for a voluntary change to the fair value method of accounting for stock-based employee compensation. In addition, SFAS No. 148 amends the disclosure requirements of SFAS No. 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. SFAS No. 148 was effective for financial statements with fiscal years ending after December 15, 2002. The adoption of SFAS No. 148 did not have a significant impact on our consolidated results of operations or financial position because the impact was limited to additional disclosure. The additional disclosure is set forth under "–Stock-Based Compensation Plans" above.

In June 2002, FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities," which is effective for exit or disposal activities initiated after December 31, 2002. SFAS No. 146 addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies Emerging Issues Task Force Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)." SFAS No. 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under Issue No. 94-3, a liability for an exit cost as defined in Issue No. 94-3 is recognized at the date an entity commits to an exit plan. We adopted SFAS No. 146 effective January 1, 2003 and recorded \$20 million of restructuring charges in 2003, \$9 million of which was related to organizational changes and \$11 million of which related to the closure and settlement of our U.S. non-qualified defined benefit plan for the participating salaried workforce.

In April 2002, FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections." The provisions of SFAS No. 145 related to the rescission of SFAS No. 4 shall be applied in fiscal years beginning after May 15, 2002. The provisions of SFAS No. 145 related to SFAS No. 13 shall be effective for transactions occurring after May 15, 2002 and all other provisions of SFAS No. 145 shall be effective for financial statements issued on or after May 15, 2002. SFAS No. 145 rescinds SFAS No. 4, "Reporting Gains and Losses from Extinguishment of Debt," and an amendment thereto, and SFAS No. 64, "Extinguishments of Debt Made to Satisfy Sinking-Fund Requirements." Previously, generally accepted accounting principles required that gains and losses from extinguishment of debt be classified as an extraordinary item, net of related income tax effect. Based on SFAS No. 145, gains and losses from extinguishment of debt are classified as extraordinary items only if they meet the criteria of APB No. 30, "Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions." The provisions of APB No. 30 distinguish transactions that are part of an entity's recurring operations from those that are unusual or infrequent or that meet the criteria for classification as an extraordinary item. As such, those that do not meet the criteria of APB

No. 30 are included in the statement of operations before income (loss) before provisions (benefits) for income taxes, minority interest and extraordinary items. Items presented in prior periods that do not meet the criteria in APB No. 30 for classification as an extraordinary item have been reclassified. SFAS No. 145 also rescinds SFAS No. 44, "Accounting for Intangible Assets of Motor Carriers." SFAS No. 145 amends SFAS No. 13, "Accounting for Leases," to eliminate an inconsistency between the required accounting for sale-leaseback transactions and the required accounting for certain lease modifications that have economic effects that are similar to sale-leaseback transactions. SFAS No. 145 also amends other existing authoritative pronouncements to make various technical corrections, clarify meanings or describe their applicability under changed conditions. We adopted SFAS No. 145 relating to SFAS No. 4 effective January 1, 2003. The effect of the adoption was to require reclassification of certain write-offs of capitalized bank fees and other debt extinguishment costs in the amount of approximately nil and \$4 million for the years ended December 31, 2001 and 2002, respectively, from extraordinary items to other (income) expense, net. The corresponding provisions for income taxes have been adjusted accordingly in the amount of approximately nil and \$1 million for the years ended December 31, 2001 and 2002, respectively. The provisions of SFAS No. 145 relating to SFAS No. 13 and the other provisions of SFAS No. 145, excluding the provisions relating to SFAS No. 4, did not have a significant impact on our consolidated results of operations or financial position.

In August 2001, FASB issued SFAS No. 144, "Accounting for Impairment or Disposal of Long-Lived Assets," which addresses financial accounting and reporting for the impairment or disposal of long-lived assets, excluding goodwill and other intangible assets not being amortized pursuant to SFAS No. 142, and certain other assets. SFAS No. 144 is effective for financial statements issued for fiscal years beginning after December 15, 2001. We adopted SFAS No. 144 effective January 1, 2002. The adoption of SFAS No. 144 did not have a significant impact on our consolidated results of operations or financial position. See Note 18 for a discussion about discontinued operations.

In July 2001, FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations." SFAS No. 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. SFAS No. 143 is effective for financial statements issued for fiscal years beginning after June 15, 2002. The adoption of SFAS No. 143 did not have a significant impact on our consolidated results of operations or financial position.

In June 2001, FASB issued SFAS No. 141, "Business Combinations," and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 requires business combinations initiated after June 30, 2001 to be accounted for using the purchase method of accounting. It also specifies the types of acquired intangible assets that are required to be recognized and reported separately from goodwill. SFAS No. 142 requires that goodwill and certain other intangibles no longer be amortized, but instead be tested for impairment at least annually. SFAS No. 142 was effective January 1, 2002. The adoption of SFAS No. 141 and SFAS No. 142 did not have a significant impact on our consolidated financial position or results of operations, except that we no longer amortize goodwill. Goodwill amortization was \$2 million in 2001. We have performed the goodwill impairment reviews required by SFAS 142 and the results of these reviews did not require our existing goodwill to be written down.

In January 2003, FASB issued Financial Interpretation ("FIN") No. 46, "Consolidation of Variable Interest Entities." FIN No. 46 clarifies the application of Accounting Research Bulletin No. 51, "Consolidated Financial Statements," to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and must be applied in the first period beginning after June 15, 2003 for entities in which an enterprise holds a variable interest entity that it acquired before February 1, 2003. We currently have no entities which have these characteristics. FASB has been addressing various implementation issues that could potentially broaden the application of FIN No. 46 to entities outside its originally interpreted scope and has issued and proposed several FASB staff positions. We do not expect FASB's proposed positions to have a significant impact on our Consolidated Financial Statements.

In November 2002, FASB issued FIN No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness to Others." The initial recognition and measurement provisions of FIN No. 45 are applicable on a prospective basis to guarantees issued or modified after December 31, 2002, and require that we record a liability, if any, for the fair value of such guarantees on the Consolidated Balance Sheets. We adopted FIN No. 45 effective January 1, 2003. The adoption of FIN No. 45 did not have a significant impact on our consolidated financial position or results of operations because the impact was limited to additional disclosure. The additional disclosure is set forth below.

Certain of our subsidiaries have guaranteed the Senior Facilities and the Senior Notes as described in Note 5 – "Long-Term Debt and Liquidity" and Note 17 – "Financial Information About the Parent, the Issuer, the Guarantors and the Subsidiaries Whose Securities Secure the Senior Notes and Related Guarantees."

We generally sell products with a limited warranty. We accrue for known warranty claims if a loss is probable and can be reasonably estimated, and accrue for estimated incurred but unidentified claims based on historical activity. The accruals were not significant for either 2001, 2002 or 2003.

### **(3) Financial Instruments**

We do not use derivative financial instruments for trading purposes. They are used to manage well-defined currency exchange rate, interest rate risks and commercial energy contract risks.

#### *Foreign Currency Contracts*

The notional amount of foreign exchange contracts used by us to minimize foreign currency exposure was \$56 million at December 31, 2002. Of the total foreign exchange contracts outstanding, approximately \$43 million (77%) were offsetting at December 31, 2002. We had no such contracts outstanding at December 31, 2003.

### *Sale of Receivables*

Certain of our U.S. and foreign subsidiaries sold receivables of \$223 million in 2001, \$187 million in 2002 and \$175 million in 2003. Receivables sold and remaining on the Consolidated Balance Sheets were \$1 million at December 31, 2002 and nil at December 31, 2003.

### *Interest Rate Risk Management*

At December 31, 2003, we had interest rate swaps for a notional amount of \$485 million that effectively convert fixed rate debt (represented by the Senior Notes) into variable rate debt in order to hedge against changes in the fair value of debt.

Our swaps are marked-to-market monthly, and we are required to provide cash collateral to the counterparty to the extent that the fair value of the swaps exceed \$15 million, net of market value of our interest rate caps. We may, at any time, exit our position in these swaps. The fair value of the hedge at the end of a period is recorded on the Consolidated Balance Sheets on the line entitled "fair value of hedged debt obligation." At December 31, 2003, the carrying value of our debt was reduced by \$18 million as a result of our fair value hedge. The swaps were valued at \$18 million (excluding the offsetting value of our interest rate caps of \$4 million) at December 31, 2003 and recorded as part of other long-term obligations on the Consolidated Balance Sheets. When we sell swaps, the gain or loss realized is amortized as a credit or charge to interest expense over the remaining term of the Senior Notes. When we effectively reduce the outstanding principal amount of the Senior Notes (through exchanges or otherwise), the related portion of such credit or charge is accelerated and recorded in the period in which such reduction occurs.

In the 2002 second quarter, we entered into \$250 million notional amount of swaps through the remaining term of the Senior Notes, effectively converting that amount of fixed rate debt to variable rate debt. In the 2002 third quarter, we sold the entire \$250 million notional amount of swaps for \$10 million in cash. In the 2002 fourth quarter, we entered into \$250 million notional amount of swaps through the remaining term of the Senior Notes. Interest rate swaps reduced our interest expense by \$6 million in 2002. The credits to interest expense for these periods due to amortization of the \$10 million proceeds for the sale of swaps was nominal. At December 31, 2002, the carrying value of our debt was increased by \$8 million as a result of our fair value hedge. The interest rate swap derivative was valued at \$8 million at December 31, 2002 and is recorded as part of other long-term assets on the Consolidated Balance Sheets.

In the 2003 first quarter, we entered into an additional \$200 million notional amount of swaps (bringing our total notional amount of swaps to \$450 million) through the remaining term of the Senior Notes, effectively converting that amount of fixed rate debt to variable rate debt. Subsequently in the 2003 first quarter, we sold the entire \$450 million notional amount of swaps for \$10 million in cash. Following the sale of the swaps, in the 2003 first quarter, we entered into \$350 million notional amount of swaps through the remaining term of the Senior Notes. Subsequently, in the 2003 second quarter, we entered into an additional \$50 million notional amount of swaps (bringing our total notional amount of swaps to \$400 million). Subsequently in the 2003 second quarter, we sold the total notional amount of \$400 million of swaps for \$21

million in cash. In the 2003 third quarter, we entered into \$500 million notional amount of swaps for the remaining term of the Senior Notes. Subsequently in the 2003 third quarter, we sold \$15 million notional amount of swaps and paid \$1 million in cash. As a result, at December 31, 2003, we held \$485 million notional amount of swaps for the remaining term of the Senior Notes. Interest rate swaps reduced our interest expense by approximately \$13 million in 2003. In 2003, we realized net proceeds of \$30 million with respect to the sale of swaps, which will be amortized as a credit to interest expense over the remaining term of the Senior Notes. Such amortization amounted to \$2 million for the year ended December 31, 2003. The credit to interest expense for 2003 due to the acceleration of the amortization of cash proceeds from the sale of swaps as a result of our exchanges of common stock for Senior Notes was \$6 million.

In the 2003 first quarter, we entered into interest rate caps for a notional amount of \$300 million through August 2007. In the 2003 second quarter, we entered into additional interest rate caps for a notional amount of \$200 million through August 2007 (bringing our total notional amount of caps to \$500 million through August 2007). These instruments effectively cap our interest rate exposure (represented by the net impact of our swaps on the Senior Notes) to no greater than 428 basis points above the six-month LIBOR rate of 122 basis points at December 31, 2003. All of our interest rate caps are marked to market monthly. Gains and losses are recorded as unrealized gains and losses in other (income) expense, net, on the Consolidated Statements of Operations. Unrealized losses on caps amounted to \$1 million for 2003.

#### *Fair Market Value Disclosures*

SFAS No. 107, "Disclosure about Fair Market Value of Financial Instruments," defines the fair value of a financial instrument as the amount at which the instrument could be exchanged in a current transaction between willing parties. Such fair values must often be determined by using one or more methods that indicate value based on estimates of quantifiable characteristics as of a particular date. Values were estimated as follows:

*Cash and cash equivalents, short-term notes and accounts receivables, accounts payable and other current payables*—The carrying amount approximates fair value because of the short maturity of these instruments.

*Debt*—Fair value of debt was \$586 million at December 31, 2002 and \$573 million at December 31, 2003.

*Foreign currency contracts*—Foreign currency contracts are carried at market value. The unrealized loss on outstanding contracts was \$3 million at December 31, 2002. We did not have any such contracts outstanding at December 31, 2003.

*Interest rate swaps and caps*—See "Interest Rate Risk Management" above.

*Natural gas contracts*—Natural gas contracts are carried at market value. We did not have any such contracts outstanding at December 31, 2002. The unrealized gain on outstanding contracts was \$1 million at December 31, 2003.

#### (4) Segment Reporting

We evaluate the performance of our operating segments based on gross profit. Intersegment sales and transfers are not material. We may in the future evaluate performance based on additional or different measures. The accounting policies of the reportable segments are the same as those described in Note 2.

In 2002, our businesses were organized around two operating divisions, the Graphite Power Systems Division, which included the electrode and cathode businesses, and the Advanced Energy Technology Division, which included the natural graphite and advanced synthetic graphite and carbon materials businesses. In accordance with SFAS No. 131, "Segment Reporting," we segregated our businesses into two reportable segments which corresponded with our two divisions.

In 2003, we further refined the organization of our businesses into three lines of business: synthetic graphite, natural graphite and advanced carbon materials, as described under Note 1.

In accordance with SFAS No. 131, we segregated our businesses into the following segments: Synthetic Graphite, which consists of the synthetic graphite line of business; and Other, which consists of the natural graphite and advanced carbon materials lines of business. We began reporting financial information using these new segments in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2003.

As required by SFAS No. 131, consolidated financial statements published by us in the future will reflect modifications to our reportable segments resulting from this organizational change, including reclassification of all comparable prior period segment information.

The following tables summarize financial information concerning our reportable segments.

	<u>For the Year Ended December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions)		
Net sales to external customers:			
Synthetic Graphite.....	\$ 559	\$ 538	\$ 639
Other.....	<u>75</u>	<u>58</u>	<u>73</u>
Consolidated net sales.....	<u>\$ 634</u>	<u>\$ 596</u>	<u>\$ 712</u>
Gross profit:			
Synthetic Graphite.....	\$ 161	\$ 125	\$ 151
Other.....	<u>18</u>	<u>10</u>	<u>17</u>
Consolidated gross profit.....	<u>\$ 179</u>	<u>\$ 135</u>	<u>\$ 168</u>
Depreciation and amortization:			
Synthetic Graphite.....	\$ 29	\$ 24	\$ 26
Other.....	<u>6</u>	<u>4</u>	<u>5</u>
Consolidated depreciation and amortization.....	<u>\$ 35</u>	<u>\$ 28</u>	<u>\$ 31</u>

“Other” in the table above, which includes natural graphite and advanced carbon materials, has been restated for the periods presented to exclude our composite tooling business that was sold in June 2003.

We do not report assets by reportable segment. Assets are managed based on geographic location because both reportable segments share certain facilities. The following tables summarize information as to our operations in different geographic areas.

	<u>For the Year Ended December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions)		
Net sales (a):			
U.S. ....	\$ 176	\$ 164	\$ 206
Canada .....	21	12	6
Mexico .....	33	37	33
Brazil .....	44	33	41
France .....	137	150	168
Italy .....	30	22	32
Switzerland .....	79	77	103
South Africa .....	53	47	65
Spain .....	29	30	28
Other countries .....	32	24	30
Total .....	<u>\$ 634</u>	<u>\$ 596</u>	<u>\$ 712</u>

(a) Net sales are based on location of seller.

	<u>At December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions)		
Long-lived assets (b):			
U.S. ....	\$ 66	\$ 61	\$ 62
Mexico .....	37	48	49
Brazil .....	34	25	26
France .....	94	109	134
Italy .....	6	7	4
South Africa .....	27	37	45
Switzerland .....	7	8	9
Other countries .....	17	20	32
Total .....	<u>\$ 288</u>	<u>\$ 315</u>	<u>\$ 361</u>

(b) Long-lived assets represent fixed assets, net of accumulated depreciation and goodwill.

(5) **Long-Term Debt and Liquidity**

The following table presents our long-term debt.

	<u>At December 31,</u>	
	<u>2002</u>	<u>2003</u>
	(Dollars in millions)	
Senior Facilities:		
Tranche A euro facility.....	\$ —	\$ —
Tranche A U.S. dollar facility .....	—	—
Tranche B U.S. dollar facility.....	137	21
Revolving credit facility .....	<u>10</u>	<u>—</u>
Total Senior Facilities .....	147	21
Other European debt .....	2	2
Senior Notes:		
Senior Notes due 2012.....	550	493
Fair value of hedged debt obligation .....	8	(18)
Unamortized bond premium.....	<u>6</u>	<u>4</u>
Total Senior Notes .....	<u>564</u>	<u>479</u>
Total.....	<u>\$ 713</u>	<u>\$ 502</u>

The aggregate maturities of long-term debt (excluding the fair value of hedged debt obligation and unamortized bond premium relating to the Senior Notes) for each of the five years subsequent to December 31, 2003 are set forth in the following table.

<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>Total</u>
				(and thereafter)	
(Dollars in millions)					
\$—	\$—	\$1	\$22	\$493	\$516

*Senior Notes*

On February 15, 2002, GrafTech Finance issued \$400 million aggregate principal amount of Senior Notes. Interest on the Senior Notes is payable semi-annually on February 15 and August 15 of each year, commencing August 15, 2002, at the rate of 10.25% per annum. The Senior Notes mature on February 15, 2012.

In April 2002, we obtained consent from the holders of the Senior Notes issued in February 2002 to amend the Senior Note Indenture so as to waive the requirement to use the gross proceeds from the issuance of up to \$150 million aggregate principal amount of additional Senior Notes to make intercompany loans to our foreign subsidiaries. On April 30, 2002, we entered into a supplement to the Senior Note Indenture.

On May 6, 2002, GrafTech Finance issued \$150 million aggregate principal amount of additional Senior Notes at a purchase price of 104.5% of principal amount, plus accrued interest from February 15, 2002, under the Senior Note Indenture. All of the Senior Notes constitute one class of debt securities under the Senior Note Indenture. The additional Senior Notes bear interest at the same rate and mature on the same date as the Senior Notes issued in February 2002. The \$7 million premium received upon issuance of the additional Senior Notes was added



to the principal amount of the Senior Notes shown on the Consolidated Balance Sheets and is amortized (as a credit to interest expense) over the term of the additional Senior Notes. As a result of our receipt of such premium, the effective annual interest rate on the additional Senior Notes is about 9.5%.

On June 5, 2002, GrafTech Finance offered to exchange new registered Senior Notes (and related guarantees) that are substantially identical to the previously outstanding Senior Notes (and related guarantees), except that certain transfer restrictions and registration rights relating to the previously outstanding Senior Notes would not apply to the new registered Senior Notes (and related guarantees). All of the previously outstanding Senior Notes (and related guarantees) were exchanged under the exchange offer.

Except as described below, GrafTech Finance may not redeem the Senior Notes prior to February 15, 2007. On or after that date, GrafTech Finance may redeem the Senior Notes, in whole or in part, at specified redemption prices beginning at 105.125% of the principal amount redeemed for the year commencing February 15, 2007 and reducing to 100.00% of the principal amount redeemed for the years commencing February 15, 2010 and thereafter, in each case plus accrued and unpaid interest to the redemption date.

In addition, before February 15, 2005, GrafTech Finance is entitled at its option on one or more occasions to redeem Senior Notes at a redemption price of 110.25% of the principal amount redeemed, plus accrued and unpaid interest to the redemption date, with the net cash proceeds from one or more underwritten primary public offerings of shares of our common stock pursuant to an effective registration statement under the Securities Act so long as:

- at least 65% of the aggregate principal amount of Senior Notes originally issued remains outstanding immediately after each such redemption (excluding Senior Notes held, directly or indirectly, by us); and
- each such redemption occurs within 60 days after the date of the related public offering.

Upon the occurrence of a change of control, GrafTech Finance will be required to make an offer to repurchase the Senior Notes at a price equal to 101.00% of the principal amount redeemed, plus accrued and unpaid interest to the redemption date. For this purpose, a change in control occurs on:

- the date on which any person beneficially owns more than 35% of the total voting power of GTI;
- the date on which individuals, who on the issuance date of the Senior Notes were directors of GTI (or individuals nominated or elected by a vote of 66⅔% of such directors or directors previously so elected or nominated), cease to constitute a majority of GTI's Board of Directors then in office;
- the date on which a plan relating to the liquidation or dissolution of GTI is adopted;

- the date on which GTI merges or consolidates with or into another person, or another person merges into GTI, or all or substantially all of GTI's assets are sold (determined on a consolidated basis), with certain specified exceptions; or
- the date on which GTI ceases to own, directly or indirectly, all of the voting power of GrafTech Global, UCAR Carbon and GrafTech Finance.

The Senior Notes rank senior to present and future subordinated debt and equally with present and future senior debt and obligations of GrafTech Finance. The Senior Notes are effectively subordinated to present and future secured debt and obligations of GrafTech Finance, to the extent of the value of the assets securing such debt and obligations, and are structurally subordinated to debt and obligations, including trade payables, of subsidiaries that are neither guarantors of the Senior Notes nor unsecured intercompany term note obligors.

GTI, GrafTech Global and UCAR Carbon and other U.S. subsidiaries that collectively hold a substantial majority of our U.S. assets have guaranteed the Senior Notes on a senior unsecured basis, except that the guarantee by UCAR Carbon is secured as described below. None of AET, Graphite Electrode Network LLC or Union Carbide Grafite, Inc. are guarantors of the Senior Notes. UCAR Holdings V Inc. is a guarantor of the Senior Notes, but is being liquidated and dissolved. Additional information with respect to the guarantees is set forth in Note 17 to the Consolidated Financial Statements.

Unsecured intercompany term notes in an aggregate principal amount, at December 31, 2003, equal to \$528 million (based on currency exchange rates in effect at December 31, 2003) and guarantees of those unsecured intercompany term notes by certain of our foreign subsidiaries have been pledged by GrafTech Finance to secure the Senior Notes, subject to the limitation that at no time will the combined value of the pledged portion of any foreign subsidiary's unsecured intercompany term note and unsecured guarantee of unsecured intercompany term notes issued by other foreign subsidiaries exceed 19.99% of the principal amount of the then outstanding Senior Notes. As a result of this limitation, the principal amount of unsecured intercompany term notes pledged to secure the Senior Notes at December 31, 2003 equals \$366 million (based on currency exchange rates in effect at December 31, 2003), or about 74% of the principal amount of the outstanding Senior Notes. The remaining unsecured intercompany term notes held by GrafTech Finance in an aggregate principal amount at December 31, 2003 of \$162 million (based on currency exchange rates in effect at December 31, 2003), or about 31% of the aggregate principal amount of the unsecured intercompany term notes, and any pledged unsecured intercompany term notes that cease to be pledged due to a reduction in the principal amount of the then outstanding Senior Notes due to redemption, repurchase or other events, will not be subject to any pledge and will be available to satisfy the claims of creditors (including the lenders under the Senior Facilities, the holders of the Senior Notes and, pursuant to the subsidiary guarantee by GrafTech Finance of the Debentures, the holders of the Debentures) as their interests may appear. The Senior Notes contain provisions restricting, subject to certain exceptions, the pledge of these unsecured intercompany term notes or related guarantees to secure any other debt or obligation.

The guarantee by UCAR Carbon has been secured by a pledge of all of the shares of capital stock (constituting 97.5% of the outstanding shares of capital stock) of AET held by

UCAR Carbon (called the “**AET Pledged Stock**”), but at no time will the value of the pledged portion of the AET Pledged Stock exceed 19.99% of the principal amount of the then outstanding Senior Notes. The pledge of the AET Pledged Stock is junior to the pledge of the AET Pledged Stock to secure UCAR Carbon’s guarantee of the Senior Facilities.

Each of the guarantees of the Senior Notes is full, unconditional and joint and severable. Payment under the guarantees could be required immediately upon the occurrence of an event of default under the Senior Notes. If a guarantor makes a payment under its guarantee, it would have the right under certain circumstances to seek contribution from the other guarantors.

The unsecured intercompany term note obligations rank senior to present and future subordinated guarantees, debt and obligations of the respective obligors, and equally with present and future senior guarantees, debt and obligations of the respective obligors. The unsecured intercompany term note obligations are effectively subordinated to present and future secured guarantees, debt and obligations of the respective obligors, to the extent of the value of the assets securing such guarantees, debt and obligations, and are structurally subordinated to guarantees, debt and obligations, including trade payables and preferred stock, of subsidiaries of the respective obligors that are not also unsecured intercompany term note obligors.

The Senior Notes contain a number of covenants that, among other things, restrict our ability to incur additional indebtedness, pay dividends, make investments, create or permit to exist restrictions on distributions from subsidiaries, sell assets, engage in certain transactions with affiliates, or enter into certain mergers and consolidations. The covenants may restrict our ability to repurchase or redeem the Debentures, even if so required thereby. Under the Senior Notes, GTI is permitted to pay dividends on common stock and repurchase common stock only in a cumulative amount of \$25 million (subject to reduction if we make other restricted payments), plus, if certain leverage ratio requirements are satisfied, an amount of up to the sum of 50% of certain cumulative consolidated net income, 100% of net cash proceeds from certain sales of common stock and certain investment returns. We are also permitted to repurchase common stock from present or former directors, officers or employees of up to the lesser of \$5 million annually or \$10 million on a cumulative basis from February 15, 2002. GrafTech Global is permitted to pay dividends to GTI for those and other purposes.

In addition to the failure to pay principal and interest when due or to repurchase Senior Notes when required, events of default under the Senior Notes include: failure to comply with applicable covenants; failure to pay at maturity or upon acceleration indebtedness exceeding \$10 million; judgment defaults in excess of \$10 million to the extent not covered by insurance; and certain events of bankruptcy.

The Senior Notes contain provisions as to legal defeasance and covenant defeasance.

### *Senior Facilities*

In February 2002, we completed a debt recapitalization and obtained the Senior Facilities which are described below. The Senior Facilities consist of:

- A Tranche A Facility, which provided for initial term loans of \$137 million and €161 million to GrafTech Finance. The Tranche A Facility was fully repaid and terminated in 2002.
- A Tranche B Facility providing for initial term loans of \$350 million to GrafTech Finance. At December 31, 2003, the principal amount of term loans outstanding under the Tranche B Facility was \$21 million. The Tranche B Facility was fully repaid and terminated in January 2004.
- A Revolving Facility providing for dollar and euro-denominated revolving and swing line loans to, and the issuance of dollar and euro-denominated letters of credit for the account of, GrafTech Finance and certain of our other subsidiaries in an aggregate principal and stated amount at any time not to exceed, initially, €250 million and, at December 31, 2003, €200 million (€25 million of which can only be used to pay or secure payment of the EU antitrust fine). The Revolving Facility terminates on February 22, 2006. As a condition to each borrowing under the Revolving Facility, we are required to represent, among other things, that the aggregate amount of payments made (excluding certain imputed interest) and additional reserves created in connection with antitrust, securities and stockholder derivative investigations, lawsuits and claims do not exceed \$340 million by more than the difference between \$75 million (being \$33 million, after giving effect to the \$10 million charge relating to the EU antitrust fine recorded in July 2001 and the \$32 million charge relating to the EU antitrust fine recorded in the 2003 fourth quarter) and the principal amount of certain other debt (\$1 million of which debt was outstanding at December 31, 2003).

We are generally required to make mandatory prepayments in the amount of:

- Either 75% or 50% (depending on our net debt leverage ratio, which is the ratio of our net debt to our EBITDA (as defined in the Senior Facilities)) of excess cash flow. The obligation to make these prepayments, if any, arises after the end of each year with respect to adjusted excess cash flow during the prior year.
- 100% of the net proceeds of certain asset sales or incurrence of certain indebtedness.
- 50% of the net proceeds of the issuance of certain GTI equity securities.

We may make voluntary prepayments under the Senior Facilities. There is no penalty or premium due in connection with prepayments (whether voluntary or mandatory).

GrafTech Finance has made and is required to make domestic intercompany loans and foreign secured intercompany loans of the net proceeds of borrowings under the Senior Facilities to GrafTech Global's subsidiaries. The obligations of GrafTech Finance under the Senior

Facilities are secured, with certain exceptions, by first priority security interests in all of these intercompany loans (including the related security interests and guarantees). We used the proceeds from the issuance of the Senior Notes in February 2002 to finance the repayment of all such foreign intercompany term loans that were outstanding at such time. The only other such intercompany loans that were outstanding at such time or thereafter were and are intercompany revolving loans to UCAR Carbon and our Swiss subsidiary. At December 31, 2003, the outstanding balance on the UCAR Carbon and our Swiss subsidiary intercompany revolving loans were \$96 million and nil, respectively.

GTI guarantees the obligations of GrafTech Finance under the Senior Facilities. This guarantee is secured, with certain exceptions, by first priority security interests in all of GTI's assets, including all of the outstanding capital stock of GrafTech Global and GrafTech Finance.

GrafTech Global and each of GrafTech Global's domestic subsidiaries (including AET, Graphite Electrode Network LLC, Union Carbide Grafite, Inc. and UCAR Holdings V Inc.), with certain exceptions, guarantees the obligations of GrafTech Finance under the Senior Facilities. These guarantees are secured, with certain exceptions, by first priority security interests in all of their assets (including the AET Pledged Stock), except that no more than 65% of the capital stock or other equity interests in our foreign subsidiaries held directly by our U.S. subsidiaries, and no other foreign assets, are pledged to secure these guarantees.

The intercompany revolving loan to our Swiss subsidiary is secured, with certain exceptions, by a first priority security interest in substantially all of its assets, including a first priority pledge of all of the outstanding capital stock of our foreign subsidiaries that are owned directly by it, and is guaranteed by most of our other principal foreign operating subsidiaries. These guarantees are secured, with certain exceptions, by first priority security interests in their assets.

Each of the guarantees is full, unconditional and joint and several, except as otherwise required to comply with applicable non-U.S. laws. Payment under the guarantees could be required immediately upon the occurrence of an event of default under the Senior Facilities. If a guarantor makes a payment under its guarantee, it would have the right under certain circumstances to seek contribution from the other guarantors.

The interest rate applicable to the Revolving Facility is, at our option, either LIBOR plus a margin ranging from 1.375% to 3.375% (depending on our leverage ratio) or, in the case of dollar-denominated loans, the alternate base rate plus a margin ranging from 0.375% to 2.375% (depending on our leverage ratio). The interest rate applicable to the Tranche B Facility is, at our option, either euro LIBOR plus a margin ranging from 2.875% to 3.625% (depending on our leverage ratio) or the alternate base rate plus a margin ranging from 1.875% to 2.625% (depending on our leverage ratio). The alternate base rate is the higher of (i) the prime rate announced by JP Morgan Chase Bank or (ii) the federal funds effective rate plus 0.50%. GrafTech Finance pays a per annum fee ranging from 0.375% to 0.500% (depending on our leverage ratio) on the undrawn portion of the commitments under the Revolving Facility. At December 31, 2002 and 2003, the interest rate on outstanding debt under the Tranche B Facility was 5.4 and 4.8%, respectively. At December 31, 2002 and 2003, there was \$10 million and nil

outstanding under the Revolving Facility, respectively. During 2001, 2002 and 2003, the weighted average interest rate on the Senior Facilities was 8.1%, 5.6% and 5.1%, respectively.

The Senior Facilities contain a number of significant covenants that, among other things, significantly restrict our ability to sell assets, incur additional debt, repay or refinance other debt or amend other debt instruments, create liens on assets, enter into sale and lease back transactions, make investments or acquisitions, engage in mergers or consolidations, make capital expenditures, make intercompany dividend payments to GTI, pay intercompany debt owed to GTI, engage in transactions with affiliates, pay dividends to stockholders of GTI or make other restricted payments and that otherwise significantly restrict corporate activities. In addition, we are required to comply with financial covenants relating to specified minimum interest coverage ratios and maximum net senior secured debt leverage ratios (which is the ratio of our net senior secured debt to our EBITDA (as defined in the Senior Facilities)), which become more restrictive over time. The covenants may restrict our ability to repurchase or redeem the Senior Notes and the Debentures, even if so required thereby.

Under the Senior Facilities, GTI is permitted to pay dividends on, and repurchase, common stock in an aggregate annual amount of \$25 million, plus up to an additional \$25 million if certain leverage ratio and excess cash flow requirements are satisfied. We are also permitted to repurchase common stock from present or former directors, officers or employees in an aggregate amount of up to the lesser of \$5 million per year (with unused amounts permitted to be carried forward) or \$25 million on a cumulative basis since February 22, 2000.

In addition to the failure to pay principal, interest and fees when due, events of default under the Senior Facilities include: failure to comply with applicable covenants; failure to pay when due, or other defaults permitting acceleration of, other indebtedness exceeding \$7.5 million; judgment defaults in excess of \$7.5 million to the extent not covered by insurance; certain events of bankruptcy; and certain changes in control.

#### *Certain Amendments to the Senior Facilities*

In April 2001, the Senior Facilities were amended to, among other things, exclude certain expenses incurred in connection with the lawsuit initiated by us against our former parents (up to a maximum of \$20 million, but not more than \$3 million in any quarter) from the calculation of financial covenants.

In February 2002, the Senior Facilities were amended to, among other things, permit us to issue up to \$400 million aggregate principal amount of Senior Notes. The amendment also changed the manner in which net debt and EBITDA (as defined in the Senior Facilities) are calculated for financial covenant purposes with respect to, among other things, certain expenses incurred in connection with the lawsuit initiated by us against our former parents. In May 2002, the Senior Facilities were amended to, among other things, permit us to issue up to \$150 million aggregate principal amount of additional Senior Notes. In connection with this amendment, our maximum permitted leverage ratio was changed to measure the ratio of net senior secured debt to EBITDA (as defined in the Senior Facilities) as against new specified amounts. Our interest coverage ratio was also changed. In addition, the amendment reduced the maximum amount available under the Revolving Facility to €200 million from €250 million (€25 million of which

could only be used to pay or secure payment of the EU antitrust fine) and reduced the basket for certain debt incurred by us that is not incurred under the Senior Facilities (excluding the Senior Notes) to \$75 million (being \$33 million after giving effect to the \$10 million charge relating to the EU antitrust fine recorded in July 2001 and the \$32 million charge recorded in the 2003 fourth quarter) from \$130 million (\$1 million of which debt was outstanding at December 31, 2003).

In October 2003, the Senior Facilities were amended to, among other things, provide us additional flexibility to make investments and repurchase Senior Notes (up to a maximum of \$35 million aggregate principal amount). The amendment also provides for the exclusion from the calculation of the financial covenants the impacts of providing a letter of credit (except to the extent that the letter of credit exceeds \$70 million) to secure payment of the EU antitrust fine and of additional charges against results of operations in connection with antitrust investigations and related lawsuits and claims due to accrued interest on the EU antitrust fine through the date of any decision of the court on our appeal of the EU antitrust fine as well as translation of the EU antitrust fine (and accrued interest thereon) from euros into dollars.

### *Leverage*

We are highly leveraged and, as discussed in Note 14, have substantial obligations in connection with antitrust investigations, lawsuits and claims. At December 31, 2003, we had total debt of \$503 million (including \$4 million of unamortized bond premium and \$18 million (excluding the offsetting value of our interest rate caps of \$4 million) for the fair value of the derivative on the hedged debt obligation), cash and cash equivalents of \$34 million and a stockholders' deficit of \$128 million. In addition, we have historically discounted or factored a substantial portion of our accounts receivable and used the proceeds to reduce our debt. Certain of our subsidiaries sold receivables totaling \$187 million in 2002 and \$175 million in 2003.

We use cash and cash equivalents, funds available under the Revolving Facility, subject to continued compliance with the financial covenants under the Senior Facilities, as well as monthly or quarterly cash flow from operations as our primary sources of liquidity. At December 31, 2003 our revolving credit facility provided for maximum borrowings of up to €200 million (\$253 million, based on currency exchange rates in effect at December 31, 2003). Our ability to borrow under this facility may effectively be less because of the impact of additional borrowings upon our compliance with the maximum net senior secured debt leverage ratio permitted or minimum interest coverage ratio required under the Senior Facilities. See Note 19—"Subsequent Event—Bank Amendment."

Our high leverage and substantial obligations in connection with antitrust investigations, lawsuits and claims could have a material impact on our liquidity. Cash flow from operations services payment of our debt and these obligations, thereby reducing funds available to us for other purposes. Our leverage and these obligations make us more vulnerable to economic downturns or in the event that these obligations are greater or timing of payment is sooner than expected.

Our ability to service our debt, as it comes due, including maintaining compliance with the covenants under the Senior Facilities, and to meet these and other obligations as they come

due is dependent on our future financial and operating performance. This performance, in turn, is subject to various factors, including certain factors beyond our control, such as changes in conditions affecting our industry, changes in global and regional economic conditions, changes in interest and currency exchange rates, developments in antitrust investigations, lawsuits and claims involving us and inflation in raw material, energy and other costs.

Even if we are able to meet our debt service and other obligations when due, we may not be able to comply with the covenants and other provisions under the Senior Facilities. These covenants and provisions include financial covenants and representations regarding absence of material adverse changes affecting us. A failure to so comply, unless waived by the lenders thereunder, would be a default thereunder. This would permit the lenders to accelerate the maturity of the Senior Facilities. It would also permit them to terminate their commitments to extend credit under the Revolving Facility. This would have an immediate material adverse effect on our liquidity. An acceleration of maturity of the Senior Facilities would permit the holders of the Senior Notes to accelerate the maturity of the Senior Notes. A breach of the covenants contained in the Senior Notes would also permit the holders of the Senior Notes to accelerate the maturity of the Senior Notes. Acceleration of maturity of the Senior Notes would permit the lenders to accelerate the maturity of the Senior Facilities and terminate their commitments to extend credit under the Revolving Facility. If we were unable to repay our debt to the lenders and holders or otherwise obtain a waiver from the lenders and holders, the lenders and holders could proceed against the collateral securing the Senior Facilities and the Senior Notes, respectively, and exercise all other rights available to them.

#### *Equity Offerings*

On July 31, 2001, we sold an aggregate of 10,350,000 shares of our common stock in a registered public offering at a public offering price of \$9.50 per share. The gross proceeds from the offering were \$98 million and the net proceeds were \$91 million. Sixty percent of the net proceeds were used to prepay term loans outstanding under the Senior Facilities. Repayments of \$23 million under the Tranche A Facility and \$32 million under the Tranche B Facility were applied against scheduled maturities of each Tranche in the order in which they were due. The balance of the net proceeds were applied to reduce the outstanding balance under the Revolving Facility.

On October 7, 2003, we sold an aggregate of 25,300,000 shares of our common stock in a registered public offering at a public offering price of \$8.00 per share. The gross proceeds from the offering were \$202 million and the net proceeds were \$190 million. \$114 million of the net proceeds were used to repay Tranche B Term Loans outstanding under the Senior Facilities. \$56 million of the net proceeds were used to reduce the outstanding balance under the Revolving Facility. The balance of the net proceeds was used to reduce other short-term debt.

#### *Write-Off of Capitalized Bank Fees and Related Debt Extinguishment Costs*

In February 2002, we recorded a charge of \$3 million for write-off of capitalized fees associated with the term loans under Tranche A and B Facilities repaid with the net proceeds from the issuance of Senior Notes.



In May 2002, we recorded a charge of \$1 million for write-off of capitalized fees associated with the term loans under Tranche A and B Facilities repaid with the net proceeds from the issuance of additional Senior Notes.

In the 2003 fourth quarter, we recorded a charge of \$2 million for write-off of capitalized fees associated with the term loans repaid with the net proceeds from the issuance and sale of the common stock in the registered public offering described above.

These charges have been included in other (income) expense, net, on the Consolidated Statement of Operations.

## (6) Income Taxes

The following table summarizes the U.S. and non-U.S. components of income (loss) before provision for income taxes, minority interest and income from discontinued operations.

	For the Year Ended December 31,		
	2001	2002	2003
	(Dollars in millions)		
U.S. ....	\$ (139)	\$ (88)	\$ (50)
Non-U.S. ....	66	55	30
	<u>\$ (73)</u>	<u>\$ (33)</u>	<u>\$ (20)</u>

Total income taxes were allocated as set forth in the following table.

	For the Year Ended December 31,		
	2001	2002	2003
	(Dollars in millions)		
Income from continuing operations .....	\$ 14	\$ (16)	\$ 5
Income from discontinued operations .....	1	1	1
	<u>\$ 15</u>	<u>\$ (15)</u>	<u>\$ 6</u>

Income tax expense attributable to income from operations consists of the items set forth in the following table.

	For the Year Ended December 31,		
	2001	2002	2003
	(Dollars in millions)		
U.S. federal income taxes:			
Current .....	\$ -	\$ (12)	\$ (5)
Deferred .....	(10)	(25)	(7)
	<u>\$ (10)</u>	<u>\$ (37)</u>	<u>\$ (12)</u>
Non-U.S. income taxes:			
Current .....	\$ 23	\$ 22	\$ 8
Deferred .....	1	(1)	9
	<u>\$ 24</u>	<u>\$ 21</u>	<u>\$ 17</u>

We have an income tax exemption from the Brazilian government on income generated from cathode and graphite electrode production through 2005 and 2006, respectively. The

exemption reduced the net expense associated with income taxes by \$1 million in 2001 and 2002 and nil in 2003.

In 1998, we obtained an income tax exemption from the Swiss government. The exemption reduced the net expense associated with income taxes by \$8 million in 2001, nil in 2002 and 2003.

Income tax expense attributable to income from continuing operations differed from the amounts computed by applying the U.S. federal income tax rate of 35% to pretax income from operations as set forth in the following table.

	<b>For the Year Ended December 31,</b>		
	<b><u>2001</u></b>	<b><u>2002</u></b>	<b><u>2003</u></b>
	(Dollars in millions)		
Tax at statutory U.S. federal rate .....	\$ (25)	\$ (12)	\$ (7)
Nondeductible expenses associated with antitrust investigations and related lawsuits and claims .....	5	—	8
State tax expense (benefit) (net of federal tax benefit) .....	(5)	(13)	(5)
Restructuring charges with no tax benefit.....	9	3	2
Adjustments related to investments in subsidiaries .....	26	—	—
Impact of dividend of foreign earnings.....	9	8	—
Non-U.S. net operating losses with no tax benefit.....	—	(1)	—
Non-U.S. tax exemptions, holidays and credits .....	(9)	—	(1)
Adjustments to deferred tax asset valuation allowance .....	(3)	16	5
Previous year's return to provision true-up.....	—	—	3
Tax effect of permanent differences .....	—	—	(2)
Foreign withholding taxes for which no tax credit can be claimed.....	—	—	2
Other .....	7	(17)	—
	<u>\$ 14</u>	<u>\$ (16)</u>	<u>\$ 5</u>

The significant components of deferred income tax expense attributable to income from continuing operations are set forth in the following table.

	<b>For the Year Ended December 31,</b>		
	<b><u>2001</u></b>	<b><u>2002</u></b>	<b><u>2003</u></b>
	(Dollars in millions)		
Deferred tax expense (exclusive of the effects of changes in the valuation allowance described below).....	\$ (6)	\$ (42)	\$ (3)
Increase (decrease) in beginning of the year balance of the valuation allowance for deferred tax assets .....	(3)	16	5
	<u>\$ (9)</u>	<u>\$ (26)</u>	<u>\$ 2</u>

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2002 and December 31, 2003 are set forth in the following table.

	<u>At December 31,</u>	
	<u>2002</u>	<u>2003</u>
	(Dollars in millions)	
Deferred tax assets:		
Fixed assets.....	\$ 38	\$ 10
Estimated liabilities and expenses associated with antitrust investigations and related lawsuits and claims.....	1	5
Postretirement and other employee benefits.....	65	46
Foreign tax credit and other carryforwards.....	97	115
Provision for scheduled plant closings and other restructurings.....	2	20
Other.....	38	47
Total gross deferred tax assets.....	241	243
Less: valuation allowance.....	(43)	(25)
Total deferred tax assets.....	<u>\$ 198</u>	<u>\$ 218</u>
Deferred tax liabilities:		
Fixed assets.....	\$ 43	\$ 53
Inventory.....	6	6
Other.....	1	16
Total deferred tax liabilities.....	50	75
Net deferred tax asset.....	<u>\$ 148</u>	<u>\$ 143</u>

Deferred income tax assets and liabilities are classified on a net current and non-current basis within each tax jurisdiction. Net deferred income tax assets are included in prepaid expenses in the amount of \$14 million at December 31, 2002 and \$16 million at December 31, 2003 and separately stated as deferred income taxes in the amount of \$171 million at December 31, 2002 and \$176 million at December 31, 2003. Net deferred tax liabilities are included in accrued income and other taxes in the amount of \$4 million at December 31, 2002 and \$6 million at December 31, 2003 and separately stated as deferred income taxes in the amount of \$33 million at December 31, 2002 and \$43 million at December 31, 2003.

During the 2000 fourth quarter, we entered into an intercompany sale-leaseback transaction between two subsidiaries relating to a U.S. graphite electrode facility, which allowed for utilization of foreign tax credits. This transaction resulted in a tax effect of a book gain of \$22 million being classified as a deferred charge, which was included in other assets and was to be amortized into income. In June 2001, as a result of the decision to shutdown this facility, the facility was sold back to the original subsidiary owner and impaired. Accordingly, we then recognized a deferred tax asset for the resulting tax basis in excess of the amount for financial reporting.

The net change in the total valuation allowance for 2003 was a decrease of \$18 million. This change results from the write-off of approximately \$20 million of foreign tax credits and the corresponding valuation allowance and a \$2 million increase in valuation allowance related to other deferred tax assets.

We have total excess foreign tax credit carryforwards of \$81 million at December 31, 2003. Of these tax credit carryforwards, \$15 million expire in 2004, \$5 million expire in 2005, \$18 million expire in 2006, \$37 million expire in 2007 and \$6 million expire in 2008 and beyond. In addition, we have federal, state and foreign net operating losses, on a tax effected basis, of \$27 million. Of these tax loss carryforwards, \$1 million expire in 2007, \$1 million

expire in 2008, \$1 million expire in 2009, \$14 million expire in 2013 through 2022 and \$10 million expire in 2023. On a recomputed basis, we used foreign tax credits to reduce U.S. current tax liabilities in the amount of \$16 million in 2001, \$2 million in 2002 and nil in 2003. Based upon the level of historical taxable income and projections for future taxable income over the periods during which these credits are utilizable, we believe it is more likely than not that we will realize the tax benefits of these deferred tax assets net of the corresponding valuation allowances that exist at December 31, 2003. It is our intention to pursue tax planning strategies and one-time events in order to utilize our foreign tax credit carryforwards prior to expiration.

We intend to make distributions of earnings from our wholly-owned subsidiary in Switzerland that have been previously taxed in the U.S. and can be distributed without any additional tax cost. With the exception of our Swiss subsidiary, U.S. income taxes have not been provided on undistributed earnings of foreign subsidiaries because our intention is to reinvest these undistributed earnings indefinitely. To the extent that our circumstances change or future earnings are repatriated, we will provide for income tax on the earnings of the affected foreign subsidiaries. We believe that any U.S. income tax on repatriated earnings would be substantially offset by U.S. foreign tax credits.

**(7) Other Expense (Income), Net**

The following table presents an analysis of other expense (income), net.

	<b>For the Year Ended December 31,</b>		
	<b><u>2001</u></b>	<b><u>2002</u></b>	<b><u>2003</u></b>
	(Dollars in millions)		
Interest income .....	\$ (2)	\$ (2)	\$ —
Currency (gains) losses .....	(2)	(28)	(35)
Bank fees, including loss on sales of accounts receivable .....	5	4	5
Legal expenses and settlements .....	—	3	1
Employee benefit curtailment and other costs .....	—	1	4
Mark-to-market on interest rate caps .....	—	—	1
Former parent company lawsuit legal expenses .....	1	1	—
Amortization of goodwill .....	2	—	—
Non-income taxes .....	—	—	3
Write-off of fixed/other assets .....	—	—	4
Global realignment .....	2	3	—
Write-off of capitalized bank fees and related debt extinguishment costs .....	—	4	2
Other .....	(3)	5	3
Total other expense (income), net .....	\$ <u>3</u>	\$ <u>(9)</u>	\$ <u>(12)</u>

We have non-dollar-denominated intercompany loans between GrafTech Finance and some of our foreign subsidiaries. At December 31, 2003, the aggregate principal amount of these loans was \$423 million (based on currency exchange rates in effect on December 31, 2003). These loans are subject to translation gains and losses due to changes in currency exchange rates. A portion of these loans are deemed to be essentially permanent and, as a result, translation gains and losses on these loans are recorded in accumulated other comprehensive loss on the Consolidated Balance Sheets. The balance of these loans are deemed to be temporary

and, as a result, translation gains and losses on these loans are recorded as unrealized gains or losses in other expense (income), net, on the Consolidated Statements of Operations. We have the ability to replace each intercompany loan with a substantially identical new intercompany loan. When we replace such a loan, we record net cumulative realized translation gains or losses with respect to that loan in other expense (income), net. Those realized gains or losses are, however, non-cash gains or losses. In 2002, we had a net total of \$28 million in currency gains, \$21 million of which gain was due to currency translation on intercompany loans and translation of financial statements of foreign subsidiaries which use the dollar as their functional currency and \$7 million of which related to transactions with third parties. In 2003, we had a net total of \$35 million of currency gains, \$39 million of which gains were due primarily to currency translation on intercompany loans offset by \$4 million of currency losses related to transactions with third parties.

## (8) Interest Expense

The following table presents an analysis of interest expense.

	For the Year Ended December 31,		
	2001	2002	2003
	(Dollars in millions)		
Interest incurred on debt.....	54	\$ 62	\$ 62
Interest rate swap benefit.....	—	(6)	(13)
Amortization of gain on sale of swaps .....	—	—	(8)
Amortization of debt issuance costs.....	2	3	3
Interest imputed on antitrust fine.....	4	1	1
Total interest expense.....	\$ 60	\$ 60	\$ 45

## (9) Supplementary Balance Sheet Detail

The following tables present supplementary balance sheet details.

	At December 31,	
	2002	2003
	(Dollars in millions)	
Accounts and notes receivable, net:		
Trade .....	\$ 85	\$ 103
Other .....	24	27
	109	130
Allowance for doubtful accounts .....	(5)	(4)
	\$ 104	\$ 126
Property, plant and equipment:		
Land and improvements.....	\$ 41	\$ 29
Buildings.....	166	155
Machinery and equipment and other.....	753	816
Construction in progress .....	35	32
	\$ 995	\$ 1,032
Other assets:		
Fair value of interest rate swap .....	\$ 8	\$ —
Fair value of interest rate caps .....	—	4

	<u>At December 31,</u>	
	<u>2002</u>	<u>2003</u>
	(Dollars in millions)	
Pension assets .....	4	5
Long term receivables.....	2	5
Long term investments.....	2	3
Capitalized bank fees.....	28	21
Cash surrender value of executive life insurance.....	3	—
Other .....	<u>5</u>	<u>4</u>
	<u>\$ 52</u>	<u>\$ 42</u>
Accounts payable:		
Trade.....	\$ 82	\$ 78
Interest .....	<u>23</u>	<u>20</u>
	<u>\$ 105</u>	<u>\$ 98</u>
Other accrued liabilities:		
Accrued accounts payable.....	\$ 14	\$ 17
Accrued imputed interest .....	5	1
Payrolls (including incentive programs) .....	4	16
Restructuring.....	14	29
Employee compensation and benefits.....	10	11
Liabilities and expenses associated with antitrust investigations and related lawsuits and claims .....	3	82
Other .....	<u>7</u>	<u>8</u>
	<u>\$ 57</u>	<u>\$ 164</u>
Other long term obligations:		
Postretirement benefits.....	\$ 70	\$ 60
Employee severance costs.....	4	4
Pension and related benefits.....	59	45
Liabilities and expenses associated with antitrust investigations and related lawsuits and claims .....	95	43
Long-term environmental liabilities.....	5	4
Fair value of interest rate swap .....	—	18
Unamortized gain on interest rate swap .....	9	32
Other .....	<u>16</u>	<u>19</u>
	<u>\$ 258</u>	<u>\$ 225</u>

The following table presents an analysis of the allowance for doubtful accounts.

	<u>2001</u>	<u>At December 31,</u> <u>2002</u>	<u>2003</u>
		(Dollars in millions)	
Balance at beginning of year .....	\$ 4	\$ 5	\$ 5
Additions .....	2	1	—
Deductions.....	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>
Balance at end of year.....	<u>\$ 5</u>	<u>\$ 5</u>	<u>\$ 4</u>

#### (10) Leases and Other Long Term Obligations

Lease commitments under noncancelable operating leases extending for one year or more will require the following future payments:

(Dollars in millions)

2004.....	\$2
2005.....	1
2006.....	1
2007.....	—
2008.....	—
After 2008 .....	—

Total lease and rental expenses under noncancelable operating leases extending one month or more were \$3 million in 2001, \$1 million in 2002 and \$1 million in 2003.

During 2001, we outsourced our information technology function to CGI Group Inc. (“CGI”). Under this ten-year agreement, CGI will manage our data services, networks, desktops, telecommunications and legacy systems. The following schedule sets forth the future payments for base services.

(Dollars in millions)

2004 .....	\$6
2005 .....	5
2006 .....	5
2007 .....	5
2008 .....	5
After 2008.....	12

In addition, we have a remaining commitment to purchase \$3 million in services above the base level over the remaining term of the agreement.

In September 2002, we entered into a ten-year outsourcing contract with CGI to provide finance and accounting business process services valued at \$36 million. The following sets forth the schedule of future payments for base services.

(Dollars in millions)

2004 .....	\$3
2005 .....	4
2006 .....	4
2007 .....	4
2008 .....	4
After 2008.....	15

## (11) Benefit Plans

### *Retirement Plans and Postretirement Benefit Plans*

Until February 25, 1991, we participated in the U.S. retirement plan of Union Carbide Corporation (“Union Carbide”). Effective February 26, 1991, we formed our own U.S.

retirement plan which covers substantially all U.S. employees. Retirement and death benefits related to employee service through February 25, 1991 are covered by the Union Carbide plan. Benefits paid by the Union Carbide plan are based on final average pay through February 25, 1991, plus salary increases (not to exceed 6% per year) until January 26, 1995 when Union Carbide ceased to own at least 50% of the equity of GTI. All our employees who retired prior to February 25, 1991 are covered under the Union Carbide plan. Pension benefits under our plan are based primarily on years of service and compensation levels prior to retirement. Prior to January 1, 2002, our plan was a defined benefit plan. Effective January 1, 2002, a new defined contribution plan was established for U.S. employees. Some employees had the option to remain in the defined benefit plan for an additional period of up to five years. Those employees without the option to remain in the defined benefit plan for an additional five years began participating in the defined contribution plan and their benefits under the defined benefit plan were frozen as of December 31, 2001. Those employees with the initial option to remain in the defined benefit plan began participating in the defined contribution plan as of April 1, 2003 and their benefits under the defined benefit plan were frozen as of March 31, 2003. Effective March 31, 2003, we froze the qualified defined benefit plan for our remaining U.S. employees and closed our non-qualified U.S. defined benefit plan for the participating salaried workforce. Under the new defined contribution plan, we make quarterly contributions to each individual employee's account equal to 2.5% of the employee's pay up to the social security wage base (\$87,000 in 2003) plus 5% of their pay above the social security wage base.

Pension coverage for employees of foreign subsidiaries is provided, to the extent deemed appropriate, through separate plans. Obligations under such plans are systematically provided for by depositing funds with trustees, under insurance policies or by book reserves.

We use a December 31 measurement date for all of our plans.

As a result of these benefit plan changes, the net pension cost for our plans was reduced from \$11 million in 2001 to \$7 million in 2002 and to \$3 million in 2003.

The components of our consolidated net pension costs are set forth in the following table.

	<b>For the Year Ended December 31,</b>		
	<b><u>2001</u></b>	<b><u>2002</u></b>	<b><u>2003</u></b>
	(Dollars in millions)		
Service cost.....	\$ 7	\$ 6	\$ 3
Interest cost.....	14	11	12
Expected return on assets .....	(14)	(11)	(11)
Amortization .....	—	—	1
Special termination benefits .....	—	—	3
Settlement (gain) loss .....	4	1	(6)
Curtailment loss.....	—	—	1
Net pension cost .....	\$ <u>11</u>	\$ <u>7</u>	\$ <u>3</u>

We also provide healthcare and life insurance benefits for eligible retired employees. These benefits are provided through various insurance companies and health care providers. We accrue the estimated net post-retirement benefit costs during the employees' credited service periods. In July 2002, we amended our U.S. post-retirement medical coverage. Effective March 31, 2003, we discontinued the Medicare supplement plan (for retirees 65 years or older or



those eligible for Medicare benefits). This change applies to all active employees except for some employees covered by a collective bargaining agreement, all current retirees who were not covered by a collective bargaining agreement when they retired and those retirees who retired under a former collective bargaining agreement.

In June 2003, we announced the termination of the existing early retiree medical plan for retirees under age 65, effective December 31, 2005. In addition, we will limit the amount of retiree's life insurance after December 31, 2004.

The impact of these changes is being amortized over the average remaining period to full eligibility of the related post-retirement benefits and resulted in a \$8 million net benefit in 2003 that is reflected on the Consolidated Statements of Operations.

The components of our consolidated net postretirement benefit costs are set forth in the following table.

<u>For the Year Ended December 31,</u>			
	<u>2001</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions)		
Service cost.....	\$ 2	\$ —	\$ —
Interest cost.....	6	4	3
Amortization of prior service cost .....	(2)	(8)	(11)
Net postretirement benefit cost .....	\$ <u>6</u>	\$ <u>(4)</u>	\$ <u>(8)</u>

The reconciliation of beginning and ending balances of benefit obligations under, and fair value of assets of, all of our pension and postretirement benefit plans, and the funded status of the plans, are as follows:

	<u>Pension Benefits</u>		<u>Postretirement Benefits</u>	
	<u>At December 31,</u>		<u>At December 31,</u>	
	<u>2002</u>	<u>2003</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions)			
Changes in benefit obligation:				
Net benefit obligation at beginning of year.....	\$ 177	\$ 192	\$ 63	\$ 47
Service cost.....	6	3	—	1
Interest cost.....	11	12	4	3
Impact of plan amendments .....	—	1	(9)	(17)
Foreign currency exchange rate changes .....	6	10	(1)	3
Actuarial loss .....	14	18	(3)	12
Divestiture.....	—	(1)	—	—
Curtailment .....	(8)	(13)	—	—
Settlement .....	(6)	(16)	—	—
Special termination benefits.....	—	3	—	—
Gross benefits paid.....	(8)	(11)	(7)	(5)
Net benefit obligation at end of year.....	\$ <u>192</u>	\$ <u>198</u>	\$ <u>47</u>	\$ <u>44</u>
Changes in plan assets:				
Fair value of plan assets at beginning of year.....	\$ 127	\$ 112	\$ —	\$ —
Actual return on plan assets .....	(11)	29	—	—

	<u>Pension Benefits</u>		<u>Postretirement Benefits</u>	
	<u>At December 31,</u>		<u>At December 31,</u>	
	<u>2002</u>	<u>2003</u>	<u>2002</u>	<u>2003</u>
	(Dollars in millions)			
Foreign currency exchange rate changes .....	5	8	—	—
Employer contributions.....	5	14	7	5
Participants contributions.....	—	—	—	—
Settlement .....	(6)	—	—	—
Gross benefits paid.....	<u>(8)</u>	<u>(11)</u>	<u>(7)</u>	<u>(5)</u>
Fair value of plan assets at end of year .....	\$ <u>112</u>	\$ <u>152</u>	\$ <u>—</u>	\$ <u>—</u>
Reconciliation of funded status:				
Funded status at end of year.....	\$ (80)	\$ (46)	\$ (47)	\$ (44)
Unrecognized net transition asset .....	(1)	(2)	—	—
Unrecognized prior service cost.....	1	1	(64)	(64)
Unrecognized net actuarial loss .....	<u>49</u>	<u>27</u>	<u>41</u>	<u>48</u>
Net amount recognized at end of year .....	\$ <u>(31)</u>	\$ <u>(20)</u>	\$ <u>(70)</u>	\$ <u>(60)</u>
Amounts recognized in the statement of financial position				
Prepaid benefit cost .....	\$ 4	\$ 5	\$ —	\$ —
Accrued benefit liability .....	(60)	(41)	(70)	(60)
Intangible asset .....	1	—	—	—
Accumulated other comprehensive income .....	<u>24</u>	<u>16</u>	<u>—</u>	<u>—</u>
Net amount recognized.....	\$ <u>(31)</u>	\$ <u>(20)</u>	\$ <u>(70)</u>	\$ <u>(60)</u>

The accumulated benefit obligation for all defined pension plans was \$186 million at December 31, 2003.

Assumptions used to determine net pension costs, pension projected benefit obligation, net postretirement benefit costs and postretirement benefits projected benefit obligation are set forth in the following table.

	<u>Pension Benefits</u>			<u>Postretirement Benefits</u>		
	<u>At December 31,</u>			<u>At December 31,</u>		
	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
Weighted average assumptions as of measurement date:						
Discount rate.....	7.34%	6.71%	6.36%	7.79%	7.04%	6.68%
Expected return on plan assets .....	8.59%	7.80%	7.73%	—	—	—
Rate of compensation increase.....	4.73%	4.04%	4.15%	3.39%	—	—
Health care cost trend on covered charges:						
Initial .....	N/A	N/A	N/A	6.88%	6.68%	8.33%
Ultimate.....	N/A	N/A	N/A	5.34%	5.38%	4.46%
Years to ultimate .....	N/A	N/A	N/A	6	6	8

Assumed health care cost trend rates had a significant effect on the amounts reported for net postretirement benefits. A one percentage point change in the health care cost trend rates would change the accumulated postretirement benefits net benefit obligation by approximately \$5 million at December 31, 2002 and change net postretirement benefit costs by approximately \$1 million for both 2001 and 2002. For 2003, as a result of certain amendments to the U.S.

postretirement benefits, health care cost trend rates have no material effect on the amounts reported for net postretirement benefits.

### *Other Non-Qualified Plans*

Since January 1, 1995, we have established various unfunded, non-qualified supplemental retirement and deferred compensation plans for certain eligible employees. We established benefits protection trusts (the "Trust") to partially provide for the benefits of employees participating in these plans. At December 31, 2002 and December 31, 2003, the Trust had assets of approximately \$2 million, which are included in other assets on the Consolidated Balance Sheets. These assets include 426,400 shares of common stock that we contributed to the Trust in March 2001. These shares, if later sold, could be used for partial funding of our future obligations under certain of our compensation and benefit plans. The shares held in Trust are not considered outstanding for purposes of calculating earnings per share until they are committed to be sold or otherwise used for funding purposes. In March 2003, we closed our non-qualified U.S. defined benefit plan for the participating salaried workforce, which resulted in an \$11 million restructuring charge in the 2003 first quarter. We started a new defined contribution plan for the salaried workforce.

### *Savings Plan*

Our employee savings plan provides eligible employees the opportunity for long term savings and investment. Under the plan as in effect through 2001, participating employees could contribute 1.0% to 7.5% of employee compensation as basic contributions and an additional 0.5% to 10.0% of employee compensation as supplemental contributions. On January 1, 2002, the plan was revised to allow employees to contribute up to 5% of pay as a basic contribution and an additional 45% of pay as supplemental contribution. For 2001 and 2002, we contributed on behalf of each participating employee an amount equal to 50% of the employee's basic contribution. For 2003, we contributed on behalf of each participating employee, in units relating to our common stock, 100% on the first 3% contributed by the employee and 50% on the next 2% contributed by the employee. We contributed \$1 million in 2001 and 2002 and 315,245 shares of our common stock in 2003.

### *Additional Information for U.S. Pension Plans*

**Plan Assets.** The following table presents our U.S. retirement plan weighted average asset allocations at December 31, 2002 and 2003, as well as our target allocations for 2004, by asset category.

	Percentage of Plan Assets at December 31,		Target Allocation
	<u>2002</u>	<u>2003</u>	<u>2004</u>
Equity Securities*.....	70.44%	75.07%	70-80%
Debt Securities.....	29.54	24.26	20-30
Other.....	0.02	0.67	No Target
Total.....	<u>100.00%</u>	<u>100.00%</u>	

\* Includes shares of our common stock in the amounts of nil and \$16 million (17.6%) at December 31, 2002 and 2003, respectively.

**Long-Term Rate of Return Assumption.** The investment objective of the plan is to meet the current and future defined benefit payment obligations of the plan. The existing assets and required contributions may be invested in both fixed income and equity investments. Equity investments may include large-cap, mid-cap, and small-cap stocks. Fixed income investments may include U.S. government securities, corporate bonds, mortgages, cash, and other fixed income instruments.

The long-term rate of return assumptions were calculated by Aon Investment Consulting (“Aon”). Twenty year rolling returns net of inflation, volatility and correlations, and inflation estimates were analyzed and regressed. Target allocations from the investment policy were utilized with 2.5% inflation. The 8% assumption utilized is below the 8.37% expected result for a plan with 70% invested in equities.

**Investment Policy and Strategy.** The investment policy and strategy of the plan is to invest 70% (60% large cap, 25% small- and mid-cap, 15% international) in equities and 30% in short duration fixed income securities. The trust allows the plan to be 80% invested in equities, including shares of our common stock. Rebalancing is undertaken monthly. The goal is to fully fund the plan as soon as possible while investing plan assets prudently.

Aon conducted an asset/liability study for the plan in 2003. The target equity allocation of 70% does not include shares of our common stock which was contributed to the plan in 2003 in addition to the minimum required cash contribution.

The following table presents information for pension plans with an accumulated benefit obligation in excess of plan assets.

	<u>December 31</u>	
	<u>2002</u>	<u>2003</u>
	(Dollars in millions)	
Projected benefit obligation .....	\$ 132	\$ 125
Accumulated benefit obligation .....	110	121
Fair value of plan assets .....	64	92

**Cash Flows.** The following represents projected future cash flow by year.

	<u>Pension Plan</u>	<u>Other Postretirement Plan</u>
	(Dollars in millions)	
Expected contributions in 2004:		
Expected employer contributions .....	\$13 to \$15	\$4
Expected employee contributions .....	\$-	\$-
Estimated future benefit payments reflecting expected future service for the fiscal year(s) ending:		
12/31/2004 .....	\$6	\$4
12/31/2005 .....	\$6	\$4
12/31/2006 .....	\$7	\$3
12/31/2007 .....	\$7	\$3
12/31/2008 .....	\$8	\$3
12/31/2009-12/31/2013 .....	\$47	\$15

## (12) Restructuring and Impairment Charges

We have had several restructuring and impairment charges during the past few years. At December 31, 2003, the outstanding balance of our restructuring reserve was \$29 million. The components of this balance consist primarily of \$15 million for organizational changes, \$8 million related to the mothballing of our graphite electrode manufacturing operations in Caserta, Italy, \$2 million related primarily to remaining lease payments on our former corporate headquarters, and \$2 million related to plant closure costs associated with the closure of our Canadian graphite electrode manufacturing operations.

In the 2003 fourth quarter, we recorded a \$2 million net non-cash write-off of the remaining book value of assets of our former graphite electrode manufacturing operations in Clarksville, Tennessee. We also recorded a \$5 million non-cash impairment of the remaining fixed assets in Caserta, Italy.

In the 2003 second quarter, we recorded \$1 million of restructuring charges for organizational changes.

In the 2003 first quarter, we recorded \$19 million of restructuring charges, consisting of \$8 million for organizational changes and \$11 million for the closure and settlement of our U.S. non-qualified defined benefit plan for the participating salaried workforce. The \$8 million charge for organizational changes related to U.S. voluntary and selective severance programs and related benefits associated with a workforce reduction of 103 employees. The closure of our non-qualified U.S. defined benefit plan resulted in recognition of net actuarial losses of \$11 million.

In the 2002 fourth quarter, we recorded \$3 million (\$2 million after tax) of impairment charges relating to our investment in our joint venture with Jilin Carbon Co. (together with its affiliates, "**Jilin**"). The impairment results from uncertainty about the completion and start-up of the planned graphite electrode facility in Changchun, China due to the effects that the challenging 2002 graphite electrode industry conditions have had on Jilin. We also recorded a

\$1 million (nil after tax) change in estimate for the restructuring charge for our graphite electrode operations in Caserta, Italy.

In the 2002 third quarter, we recorded a \$1 million charge related to the impairment of available-for-sale securities.

In the 2002 second quarter, we recorded a \$13 million (\$8 million after tax) charge primarily related to the impairment of our long-lived carbon electrode assets in Columbia, Tennessee as a result of a decline in demand and loss of market share. The primary end market for carbon electrodes is silicon metal, which had been very depressed in the U.S. where our main customer base is located. This charge also includes \$1 million related to the impairment of available-for-sale securities.

In the 2002 first quarter, we recorded a \$5 million restructuring charge that related primarily to the mothballing of our graphite electrode manufacturing operations in Caserta, Italy. This charge included estimated pension, severance and other related employee benefit costs for 102 employees and other costs related to the mothballing.

In the 2001 fourth quarter, we recorded a \$7 million restructuring charge and a \$27 million impairment loss on long-lived and other assets. The restructuring charge related primarily to exit costs related to the mothballing of graphite electrode manufacturing operations in Caserta, Italy. \$24 million of the impairment loss on long-lived assets related to assets located at our facility in Caserta, Italy. The remaining \$3 million related to the impairment of available-for-sale securities.

In the 2001 third quarter, we recorded a \$2 million restructuring charge related to a corporate realignment of our businesses, the relocation of our corporate headquarters and the shutdown of our coal calcining operations located in Niagara Falls, New York. The relocation was substantially completed in 2001. The charge includes severance and related benefits associated with a workforce reduction of 24 employees and impairment of leasehold improvement assets.

In 2001 third quarter, we reversed \$2 million of prior restructuring charges based on revised lower estimates of workforce reductions and plant closure costs, and we reclassified \$4 million of prior restructuring charges related to on-site waste disposal post-monitoring costs to other long term obligations.

In the 2001 second quarter, we recorded a \$58 million charge for restructuring and impairment loss on long-lived assets related to the shutdown of our graphite electrode manufacturing operations in Clarksville and Columbia, Tennessee and our coal calcining operations in Niagara Falls, New York. The \$58 million charge includes restructuring charges of \$2 million for severance and related benefits associated with a workforce reduction of 171 employees and \$3 million in plant shutdown and related costs. The remaining \$53 million relates to the impairment loss on long-lived assets. The shutdown was completed in the 2001 third quarter.

The fair value of the long-lived assets was calculated on the basis of discounted estimated future cash flows. Estimates of the discounted future cash flows are subject to

significant uncertainties and assumptions. Accordingly, actual values could vary significantly from such estimates.

The following table summarizes activity relating to the accrued expense in connection with the restructuring charges.

	Severance and Related <u>Costs</u>	Plant Shutdown and Related <u>Costs</u>	Post Monitoring and Related <u>Costs</u>	<u>Total</u>
	(Dollars in millions)			
<b>Balance at January 1, 2001 .....</b>	\$ 13	\$ 9	\$ 4	\$ 26
Restructuring charges in 2001 .....	4	8	—	12
Payments in 2001 .....	(13)	(5)	—	(18)
Non-cash write-offs in 2001 .....	—	(4)	—	(4)
Reclassification of on-site disposal and monitoring costs .....	—	—	(4)	(4)
<b>Balance at December 31, 2001 .....</b>	<u>4</u>	<u>8</u>	<u>—</u>	<u>\$ 12</u>
Restructuring charges in 2002 .....	6	—	—	6
Payments in 2002 .....	(5)	1	—	(4)
<b>Balance at December 31, 2002 .....</b>	<u>5</u>	<u>9</u>	<u>—</u>	<u>\$ 14</u>
Restructuring charges in 2003 .....	20	—	—	20
Payments in 2003 .....	(3)	(2)	—	(5)
<b>Balance at December 31, 2003 .....</b>	<u>\$ 22</u>	<u>\$ 7</u>	<u>\$ —</u>	<u>\$ 29</u>

The restructuring accrual is included in other accrued liabilities on the Consolidated Balance Sheets.

### (13) Management Compensation and Incentive Plans

#### *Stock Options*

We have adopted several stock incentive plans. The aggregate number of shares reserved under the plans since their initial adoption was 14,500,000 shares at December 31, 2002 and December 31, 2003. The plans permit options and restricted stock to be granted to employees and, in the case of one plan since March 1998, also to non-employee directors.

In 1995, we granted 12-year options to management to purchase 4,761,000 shares at an exercise price of \$7.60 per share, of which options for 3,967,400 shares vested at the time of our initial public offering in 1995, and the balance were performance options, one fifth of which were to vest in each of 1995 through 1999 on achievement of designated EBITDA targets. In December 1997, GTI's Board of Directors accelerated the vesting of the 1998 performance options. We did not achieve the 1999 performance targets and, accordingly, the 1999 performance options were cancelled.

In 1996, we granted 10-year options to mid-management to purchase 960,000 shares at an exercise price of \$35.00 per share, and granted additional 10-year options to mid-management

to purchase 4,000 shares at an exercise price of \$40.44 per share. In 1997, we granted 10-year options to mid-management to purchase 61,500 shares at an exercise price of \$39.31 per share. The options vest eight years from the grant date. Accelerated vesting occurs if the market price of the common stock equals or exceeds specified amounts. At December 31, 2003, 160,000 of such options were not yet vested.

In 1997, we granted 10-year options to management to purchase 155,000 shares at an exercise price of \$37.59 per share. At December 31, 2003, all such options were vested.

In 1998, we granted 10-year options to purchase shares as follows:

- Options for 641,000 shares were granted to certain officers and directors at exercise prices ranging from \$29.22 to \$34.36 per share. Options for 320,000 shares vest one year from the grant date, options for 221,000 shares vest two years from the grant date and options for 100,000 shares vest three years from the grant date. At December 31, 2003, all of such options were vested.
- Options for 1,935,000 shares were granted to certain officers and management at exercise prices ranging from \$15.50 to \$17.06 per share. Options for 628,000 shares vest after one year from the grant date, and all remaining options vest seven years from the grant date, subject to accelerated vesting if the market price for the common stock equals or exceeds specified amounts. At December 31, 2003, all of such options were vested.

In 1999, we granted 10-year options to purchase shares as follows:

- Options for 409,000 shares were issued to certain officers, management and directors at exercise prices ranging from \$14.13 to \$26.50 per share. Options for 274,101 shares vest one year from the grant date, and all remaining options vest seven years from the grant date, subject to accelerated vesting if the market price for the common stock equals or exceeds specified amounts. At December 31, 2003, 6,667 of such options were not yet vested.

In 2000, we granted 10-year options to purchase shares as follows:

- Options for 2,615,511 shares were issued to certain officers, management and directors at exercise prices ranging from \$8.56 to \$19.06 per share. Options for 2,070,100 shares vest two years from the grant date, options for 200,000 shares vest five years from the grant date, 175,901 shares vest one year from the grant date, options for 12,200 vested at the grant date, options for 35,040 shares vested ratably over the course of 2000 and all remaining options vest seven years from the grant date, subject to accelerated vesting if the market price for the common stock equals or exceeds specified amounts. At December 31, 2003, 223,334 of such options were not yet vested.

In 2001, we granted 10-year options to purchase shares as follows:



- Options for 1,755,170-shares were issued to certain officers, management and directors at exercise prices ranging from \$8.85 to \$11.95 per share. Options for 1,644,300 shares vest two years from the grant date and options for 110,870 shares vested on the grant date. At December 31, 2003, all of such options were vested.

In 2002, we granted 10-year options to purchase shares as follows:

- Options for 89,701 shares were issued to certain officers, management and directors at exercise prices ranging from \$8.44 to \$10.77 per share. Options for 8,380 shares vested on the grant date, options for 41,321 shares vest one year from the grant date and options for 40,000 shares vest two years from the grant date. At December 31, 2003, 15,000 of these options were not yet vested.

In 2003, we granted options to purchase shares as follows:

- Options for 3,188,435 shares were issued to certain officers, management and directors at exercise prices ranging from \$2.85 to \$12.23 per share. We granted 10-year options for 91,935 shares that vest one year from the grant date and 10-year options for 25,000 shares that vest two years from the grant date. In addition, we granted options for 3,071,500 shares in connection with our long-term incentive program. These options vest five years from the grant date and expire five months later. Accelerated vesting occurs if certain cash flow performance targets are achieved in each of 2003, 2004 and 2005. At December 31, 2003, none of these options were vested.

The following table summarizes the status of our stock-based compensation plans at the dates and for the period indicated.

	For the Year Ended December 31,					
	2001		2002		2003	
	<u>Shares</u>	<u>Weighted-Average Exercise Price</u>	<u>Shares</u>	<u>Weighted-Average Exercise Price</u>	<u>Shares</u>	<u>Weighted-Average Exercise Price</u>
			(Shares in thousands)			
Time vesting options:						
Outstanding at beginning of year .....	7,856	\$ 16.55	9,251	\$ 15.24	8,994	\$ 15.34
Granted at market price .....	1,752	8.99	507	10.55	3,188	6.59
Granted at price exceeding market .....	—	—	—	—	—	—
Granted at price below market.....	—	—	—	—	—	—
Exercised .....	(188)	7.60	(546)	7.60	(552)	8.45
Forfeited/canceled .....	(169)	19.80	(218)	13.56	(452)	15.76
Outstanding at end of year .....	<u>9,251</u>	\$ 15.24	<u>8,994</u>	\$ 15.34	<u>11,178</u>	\$ 13.17
Options exercisable at year end .....	4,975	\$ 18.85	6,779	\$ 16.16	7,582	\$ 15.44
Weighted-average fair value of options granted during year:						

<u>For the Year Ended December 31,</u>						
<u>2001</u>		<u>2002</u>		<u>2003</u>		
	<u>Weighted-Average Exercise Price</u>		<u>Weighted-Average Exercise Price</u>		<u>Weighted-Average Exercise Price</u>	
	<u>Shares</u>		<u>Shares</u>		<u>Shares</u>	
			(Shares in thousands)			
At market .....		5.58		6.01		6.59
Exceeding market .....		—		—		—
Below market .....		—		—		—
Performance vesting options:						
Outstanding at beginning of year .....	401	\$ 7.60	378	\$ 7.60	378	\$ 7.60
Granted .....	—	—	—	—	—	—
Exercised .....	(23)	7.60	—	—	(46)	7.60
Forfeited/canceled .....	—	—	—	—	—	—
Outstanding at end of year .....	<u>378</u>	7.60	<u>378</u>	7.60	<u>332</u>	7.60
Options exercisable at year end .....	378	\$ 7.60	378	\$ 7.60	332	\$ 7.60

The fair value of each stock option is estimated on the grant date using the Black-Scholes option pricing model with the following weighted-average assumptions for grants in 2001, 2002 and 2003, respectively: dividend yield of 0.0% for all years; expected volatility of 52% in 2001, 55% in 2002 and 76% in 2003; risk-free interest rates of 4.8% in 2001, 4.3% in 2002 and 4.0% in 2003; and expected lives of 8 years in 2001 and 2002 and 6 years in 2003.

The following table summarizes information about stock options outstanding at December 31, 2003.

<u>Range of Exercise Prices</u>	<u>Options Outstanding</u>			<u>Options Exercisable</u>	
	<u>Number Outstanding</u>	<u>Weighted-Average Remaining Contractual Life</u>	<u>Weighted-Average Exercise Prices</u>	<u>Number Exercisable</u>	<u>Weighted-Average Exercise Prices</u>
			(Shares in thousands)		
Time vesting options:					
\$2.83-10.77	7,119	6 years	\$7.62	3,936	\$8.47
\$11.60 to \$19.06	2,522	5 years	16.48	2,238	16.86
\$22.82 to \$29.22	141	5 years	25.71	135	25.85
\$30.59 to \$40.44	<u>1,396</u>	3 years	34.31	<u>1,222</u>	34.11
	<u>11,178</u>		13.00	<u>7,531</u>	15.09
Performance vesting options:					
\$7.60	332	3 years	\$7.60	332	\$7.60

#### *Incentive Compensation Plans*

In 2000, we implemented global incentive programs for our worldwide salaried and hourly employees. These plans were based on our financial performance and achievement of

strategic or, in the case of hourly employees, local targets. The cost for this plan was nil in 2001 and 2002. In 2003, the Incentive Compensation Program ("ICP") replaced the former programs, creating one program for all employees. The ICP is based primarily on achieving cash flow targets and, to a lesser extent, strategic targets. The cost for the ICP was \$11 million in 2003.

#### *Other*

In 1998, we entered into a five-year employment agreement with our former chairman of the board.

In 2000, we granted 100,000 restricted shares to our former chairman of the board, and we are amortizing the value of those shares as of the grant date (\$2 million) over the vesting period which ended in June 2003.

In 2002, we granted 412,200 shares of restricted stock to employees. We also recorded a \$5 million non-cash compensation charge associated with the accelerated vesting of those shares.

From 1998 to 2002, we maintained an executive employee loan program. No loans were made in 2001 or 2002. During 2002, all previously outstanding loans were repaid as described below. From 1998 to 2002, we maintained an executive employee stock purchase program. No purchases were made in 2001 or 2002. In 2002, management participating in these programs repaid all outstanding loans with shares of common stock valued at fair market value on the date of repayment and cash. These programs were discontinued in 2002.

### **(14) Contingencies**

#### *Antitrust Investigations*

In April 1998, pursuant to a plea agreement between the U.S. Department of Justice and GTI, GTI pled guilty to a one count charge of violating U.S. federal antitrust law in connection with the sale of graphite electrodes and was sentenced to pay a non-interest-bearing fine in the aggregate amount of \$110 million, payable in six annual installments. The plea agreement was approved by the U.S. District Court for the Eastern District of Pennsylvania (the "**District Court**"). The payment schedule has been revised periodically at our request. In January 2002, the payment schedule for the \$60 million balance outstanding at that time was revised to require a \$2.5 million payment in April 2002, a \$5.0 million payment in April 2003 and, beginning in April 2004, quarterly payments ranging from \$3.25 million to \$5.375 million, through January 2007. Beginning in 2004, the DOJ may ask the District Court to accelerate the payment schedule based on a change in our ability to make such payments. Interest will begin to accrue on the unpaid balance, commencing in April 2004, at the statutory rate of interest then in effect. At December 31, 2003, the statutory rate of interest was 1.28% per annum. Accrued interest will be payable together with each quarterly payment. The revised schedule has been approved by the District Court. Of the \$110 million original aggregate amount, \$90 million is treated as a fine and \$20 million is treated as imputed interest for accounting purposes. All payments due have been timely paid.

In 2002, following an investigation as to whether there had been any violation of Korean antitrust law by producers and distributors of graphite electrodes, the Korean antitrust authority

assessed fines against us and other graphite electrode producers. We paid the fine together with accrued interest, an aggregate of \$584,000, in August 2002.

In January 2000, the EU Competition Authority issued a statement of objections initiating proceedings against us and other producers of graphite electrodes. The statement alleges that we and other producers violated antitrust laws of the European Community and the European Economic Area in connection with the sale of graphite electrodes. In July 2001, the EU Competition Authority issued its decision regarding the allegations. Under the decision, the EU Competition Authority assessed a fine of €50.4 million (about \$64 million, based on currency exchange rates in effect at December 31, 2003) against us. From the initiation of its investigation, we have cooperated with the EU Competition Authority. As a result of our cooperation, the EU antitrust fine reflects a substantial reduction from the amount that otherwise would have been assessed. After an in-depth analysis of the decision, in October 2001, we filed an appeal to the Court of First Instance of the European Communities in Luxembourg (the "Court") challenging, among other things, the amount of the EU antitrust fine, including the accrual of interest and the rate thereof. In July 2003, the Court heard oral argument on this appeal. The Court has not yet issued its decision.

During the pendency of an appeal, provisional payment of the fine or collateral security for payment thereof would typically be required to be paid or provided. Under its decision, the EU Competition Authority stated that, until paid (including a provisional payment described below), the EU antitrust fine would accrue interest at the rate of 8.04% per annum, commencing October 2001, provided, however, that if a letter of credit, sufficient to secure payment of both the fine and interest accrued and accruing thereon, was delivered to the EU Competition Authority, then the rate of interest would be 6.04% per annum.

Since the filing of our appeal in October 2001 through September 2003, we negotiated with the EU Competition Authority regarding the appropriate form of collateral security for the EU antitrust fine during the pendency of our appeal. In September 2003, we filed an interim appeal to the Court to waive the requirement for provisional payment of the EU antitrust fine or delivery of a letter of credit as collateral security for payment thereof or to allow us to provide alternative security for payment during the period prior to the Court's decision on our appeal.

See Note 19 for developments after December 31, 2003 relating to the interim appeal and the EU antitrust fine.

In May 2001, we became aware that the Brazilian antitrust authority had requested written information from various steelmakers in Brazil. In April 2002, our Brazilian subsidiary received a request for information from that authority. We have provided that information.

Except as described above, the antitrust investigations against us in the U.S., Canada, the European Union, Japan and Korea with respect to graphite electrodes and in the European Union with respect to isostatic and extruded specialty graphite have been resolved. We are continuing to cooperate with the DOJ, EU Competition Authority and the Canadian Competition Bureau in their continuing investigations of others. In October 1997, we were served with subpoenas by the DOJ to produce documents relating to, among other things, our carbon electrode and bulk graphite businesses. Under plea agreements in the U.S. and Canada, we will not be subject to

prosecution by the respective antitrust authorities with respect to any other violations of their respective antitrust laws occurring prior to the date of the applicable plea agreement in connection with the sale of graphite and carbon products. It is possible that antitrust investigations seeking, among other things, to impose fines and penalties could be initiated against us by antitrust authorities in Brazil or other jurisdictions.

To the extent that antitrust investigations involving us have been resolved with guilty pleas or by adverse decisions, such guilty pleas and decisions make it more difficult for us to defend against other investigations as well as civil lawsuits and claims. We have been vigorously protecting, and intend to continue to vigorously protect, our interests in connection with the investigations described above. We may, however, at any time settle any possible unresolved charges.

### *Antitrust Lawsuits*

Through December 31, 2003, except as described in the following paragraphs, we have settled or obtained dismissal of all of the civil antitrust lawsuits (including class action lawsuits) previously pending against us, certain civil antitrust lawsuits threatened against us and certain possible civil antitrust claims against us by certain customers who negotiated directly with us. The settlements cover, among other things, virtually all of the actual and potential claims against us by customers in the U.S. and Canada arising out of alleged antitrust violations occurring prior to the date of the relevant settlements in connection with the sale of graphite electrodes. One of the settlements also covers actual and potential claims against us by certain foreign customers arising out of alleged antitrust violations occurring prior to the date of that settlement in connection with the sale of graphite electrodes sourced from the U.S. Although each settlement is unique, in the aggregate they consist primarily of current and deferred cash payments with some product credits and discounts. All payments due have been timely paid.

In 1999 and 2000, we and other producers of graphite electrodes were served with three complaints commencing three separate civil antitrust lawsuits in the District Court. In March 2002, we were served with another complaint commencing a separate civil antitrust lawsuit in the District Court. These lawsuits are called the “**foreign customer lawsuits**.” The first complaint, entitled *Ferromin International Trade Corporation, et al. v. UCAR International Inc., et al.*, was filed by 27 steelmakers and related parties, all but one of whom are located outside the U.S. The second complaint, entitled *BHP New Zealand Ltd. et al. v. UCAR International Inc., et al.* was filed by 4 steelmakers, all of whom are located outside the U.S. The third complaint, entitled *Saudi Iron and Steel Company v. UCAR International Inc., et al.*, was filed by a steelmaker who is located outside the U.S. The fourth complaint, entitled *Arbed, S.A., et al. v. Mitsubishi Corporation, et al.*, was filed by 5 steelmakers, all of whom are located outside the U.S. In each complaint, the plaintiffs allege that the defendants violated U.S. federal antitrust law in connection with the sale of graphite electrodes sold or sourced from the U.S. and those sold and sourced outside the U.S. The plaintiffs seek, among other things, an award of treble damages resulting from such alleged violations. We believe that we have strong defenses against claims alleging that purchases of graphite electrodes outside the U.S. are actionable under U.S. federal antitrust law. We filed motions to dismiss the first and second complaints. In June and July 2001, our motions to dismiss the first and second complaints were granted with respect to substantially all of the plaintiffs’ claims. The claims not dismissed relate to sales invoiced from

the U.S. Appeals have been filed by the plaintiffs and the defendants with the U.S. Court of Appeals for the Third Circuit with regard to these dismissals. The U.S. Court of Appeals for the Third Circuit heard oral argument on these appeals on March 11, 2003, and we are awaiting its decision. The third complaint was dismissed without prejudice to refile pending the resolution of such appeals. We filed a motion to stay the lawsuit commenced by the fourth complaint pending resolution of appeals in the other foreign customer lawsuits, and such motion was granted in July 2002.

In 1999 and 2000, we were served with three complaints commencing three civil antitrust lawsuits (the “**carbon electrode lawsuits**”). The first complaint, filed in the District Court, is entitled *Globe Metallurgical, Inc. v. UCAR International Inc., et al.* The second complaint, initially filed in the U.S. Bankruptcy Court for the Northern District of Ohio and subsequently transferred to the U.S. District Court for the Northern District of Ohio, Eastern Division, is now entitled *Cohen & Co., Distribution Trustee v. UCAR International Inc., et al. (In re Simetco, Inc.)*. The third complaint, filed in the U.S. District Court for the Southern District of West Virginia, is entitled *Elkem Metals Company Inc and Elkem Metals Company Alloy LLP v. UCAR Carbon Company Inc., et al.* SGL Carbon AG is also named as a defendant in the first complaint and SGL Carbon Corporation is also named as a defendant in the first and third complaints. In the complaints, the plaintiffs allege that the defendants violated U.S. federal antitrust law in connection with the sale of carbon electrodes and seek, among other things, an award of treble damages resulting from such alleged violations. In October 2001, we settled the lawsuit commenced by the third complaint. In September 2002, we settled the lawsuit commenced by the first complaint. In January 2003, we settled the lawsuit commenced by the second complaint. The guilty pleas and decisions described above do not relate to carbon electrodes.

In the 2002 first quarter, we and other producers of cathodes were served with a complaint commencing a civil antitrust lawsuit in the U.S. District Court for the District of Oregon entitled *Northwest Aluminum Company, et al. vs. VAW Aluminum A.G., et al* (the “**carbon cathode lawsuit**”). The complaint was filed by two producers of aluminum. In the complaint, the plaintiffs allege that the defendants violated U.S. federal antitrust law in connection with the sale of cathodes and seek, among other things, an award of treble damages resulting from such alleged violations. In November 2002, we settled this lawsuit. The guilty pleas and decisions described above do not relate to cathodes.

In late 2002 and early 2003, we and other producers of bulk graphite were served with three complaints commencing three civil class action antitrust lawsuits. The first complaint, filed in the U.S. District Court for the District of New Jersey (the “**NJ District Court**”), was entitled *Industrial Graphite Products, Inc. v. Carbone Lorraine North America Corporation, et al.* The second complaint, filed in the NJ District Court, was entitled *Ceradyne, Inc. v. Carbone Lorraine North America Corporation, et al.* The third complaint, filed in the District Court, was entitled *General Refractories Company v. GrafTech International Ltd., et al.* Subsequently in early 2003, the third complaint was dismissed by the District Court without prejudice, and we and other producers of bulk graphite were served with two additional complaints commencing civil class action antitrust lawsuits. The complaints were filed in the NJ District Court and were entitled *General Refractories Company v. GrafTech International Ltd., et al.* and *Midwest Graphite Co., Inc. v. SGL Carbon, LLC, et al.*. The lawsuits commenced by the first, second, fourth and fifth complaints, along with a lawsuit commenced by a sixth complaint filed only

against SGL Carbon, LLC, SGL Carbon A.G. and SGI Carbon GmbH, were subsequently consolidated into a single class action lawsuit filed in April 2003 in the NJ District Court entitled *In re: Bulk [Extruded] Graphite Products Antitrust Litigation* (the “**bulk graphite lawsuit**”). In the bulk graphite lawsuit, the plaintiffs allege that the defendants violated U.S. federal antitrust law in connection with the sale of bulk graphite and seek, among other things, an award of treble damages resulting from such alleged violations. In the 2003 first half, we reached an agreement to settle the bulk graphite lawsuit. See Note 19 for developments after December 31, 2003 relating to the bulk graphite lawsuit.

The foreign customer lawsuits are still in their early stages. We have been vigorously defending, and intend to continue to vigorously defend, against these remaining lawsuits as well as all threatened lawsuits and possible unasserted claims. We may at any time, however, settle these lawsuits as well as any threatened lawsuits and possible claims. It is possible that additional civil antitrust lawsuits seeking, among other things, to recover damages could be commenced against us in the U.S. and in other jurisdictions.

#### *Antitrust Earnings Charges and Payments*

We have recorded pretax charges of \$382 million against results of operations as a reserve for potential liabilities and expenses in connection with antitrust investigations and related lawsuits and claims. The charges of \$382 million are calculated on a basis that (i) excludes, among other things, both actual and imputed interest on the DOJ antitrust fine and actual interest, if any, on the EU antitrust fine after the Court’s decision on our appeal is issued and becomes final and (ii) includes, among other things, the impact of changes in currency exchange rates on the euro-denominated EU antitrust fine and interest accrued or to accrue on the EU antitrust fine prior to the time the Court’s decision on our appeal is issued and becomes final.

Despite the fact that a provisional payment of a fine is only provisional under European law, generally accepted accounting principles require a charge to be recorded to cover the full amount of a provisional payment, to the extent that payment was not already covered by a reserve. In connection with the provisional payment that we made in February 2004 as described in Note 19, we recorded a \$32 million charge in the 2003 fourth quarter, which increased our estimate of the aggregate expenses for these liabilities from \$350 million to \$382 million. To the extent that aggregate liabilities and expenses, net, are known or reasonably estimable, as of December 31, 2003, \$382 million represents our estimate of these liabilities and expenses. We believe that the amount of the EU antitrust fine will be reduced on appeal. To the extent that the actual amount of the EU antitrust fine (after all appeals and including any interest thereon) is less than the amount so provisionally paid, any excess would be refunded to us. To the extent that such actual amount exceeds the amount so provisionally paid, we will be required to make an additional payment equal to such excess. Such additional payment may require us to record an additional charge.

Through December 31, 2003, we have paid an aggregate of \$257 million of fines and net settlements and expenses (of which \$238 million has been applied against the reserve and \$19 million of imputed interest (as described below) has not been applied against the reserve). In the aggregate, the fines and net settlements and expenses are within the amounts we used to evaluate

the aggregate charges of \$382 million. Our insurance has not and will not materially cover liabilities that have or may become due in connection with antitrust investigations or related lawsuits or claims.

At December 31, 2003, \$125 million remained in the reserve. At December 31, 2003, the remaining amount of the reserve was unfunded and was available for the DOJ antitrust fine, the EU antitrust fine and other matters. The reserve does not cover interest on the DOJ antitrust fine (including interest that, for accounting purposes, is imputed on the DOJ antitrust fine for the period during which it is non-interest bearing). Such interest is recorded in interest expense on the Consolidated Statements of Operations. Interest accruing on the EU antitrust fine, if any, after the date of the Court's decision on our appeal will be recorded in interest expense.

Actual aggregate liabilities and expenses (including settled investigations, lawsuits and claims as well as continuing investigations, pending appeals and unsettled pending, threatened and possible lawsuits and claims mentioned above) could be materially higher than \$382 million and the timing of the payment thereof could be sooner than anticipated.

#### *Other Proceedings Against Us*

We are involved in various other investigations, lawsuits, claims and other legal proceedings incidental to the conduct of our business. While it is not possible to determine the ultimate disposition of each of them, we do not believe that their ultimate disposition will have a material adverse effect on us.

#### *Lawsuit Initiated by Us Against Our Former Parents*

In February 2000, at the direction of a special committee of independent directors of GTI's Board of Directors, we commenced a lawsuit in the U.S. District Court for the Southern District of New York against our former parents, Mitsubishi and Union Carbide. The other defendants named in the lawsuit include two of the respective representatives of Mitsubishi and Union Carbide who served on GTI's Board of Directors at the time of our 1995 leveraged equity recapitalization, Hiroshi Kawamura and Robert D. Kennedy. Mr. Kennedy, who was a director of GTI at the time the lawsuit was commenced, resigned as such on March 14, 2000.

In the lawsuit, we allege, among other things, that, in January 1995, Mitsubishi and Union Carbide had knowledge of facts indicating that GTI had engaged in illegal graphite electrode price fixing activities and that any determination of GTI's statutory capital surplus would be overstated as a result of those activities. We also allege that certain of their representatives knew or should have known about those activities. In January 2000, Mitsubishi was indicted by the DOJ on a one count charge of aiding and abetting violations of U.S. federal antitrust law in connection with the sale of graphite electrodes. Mitsubishi entered a plea of not guilty. In February 2001, a jury found Mitsubishi guilty of the charge. Mitsubishi entered into a sentencing agreement with the DOJ, which was approved by the District Court, pursuant to which Mitsubishi agreed to pay a fine of \$134 million and not appeal its conviction. Mitsubishi has also been named as a defendant in several civil antitrust lawsuits commenced by electric arc furnace steel producers with respect to its alleged participation in those activities. In addition, we allege that, in January 1995, GTI did not have the statutory capital surplus required to



lawfully authorize the payments that GTI made to its former parents. We also allege that Mitsubishi and Union Carbide were unjustly enriched by receipts from their investments in GTI and that they knowingly induced or actively and substantially assisted former senior management of GTI to engage in illegal graphite electrode price fixing activities in breach of their fiduciary duties to GTI.

Based on the allegations summarized above, we are seeking to recover from Mitsubishi and Union Carbide more than \$1.5 billion in damages, including interest. Some of our claims provide for joint and several liability; however, damages from our various claims would not generally be additive to each other.

The defendants have filed motions to dismiss this lawsuit and a motion to disqualify certain of our counsel from representing us in this lawsuit. Oral hearings were held on those motions in the 2001 first and second quarters. The court approved a motion to disqualify certain of our counsel in November 2002, and denied our motion to reconsider that decision. See Note 19 for developments after December 31, 2003 relating to this lawsuit.

We expect to incur \$10 million to \$20 million for legal expenses to pursue this lawsuit from the date of filing the complaint through appeal and ultimately to trial. Through December 31, 2003, we had incurred about \$6 million of these legal expenses. This lawsuit is in its earliest stages. The ultimate outcome of this lawsuit is subject to many uncertainties. We may at any time settle this lawsuit.

#### (15) Earnings Per Share

Basic and diluted earnings per share are calculated based upon the provisions of SFAS No. 128, adopted in 1997, using the following share data:

	<u>2001</u>	<u>2002</u>	<u>2003</u>
Weighted-average common shares outstanding for			
basic calculation.....	49,719,938	55,941,878	67,980,838
Add: Effect of stock options .....	<u>          —          </u>	<u>          —          </u>	<u>          —          </u>
Weighted-average common shares outstanding,			
adjusted for diluted calculation.....	<u>49,719,938</u>	<u>55,941,878</u>	<u>67,980,838</u>

As a result of the net loss from operations reported in 2001, 2002 and 2003, 690,992, 779,051 and 508,215 potential common shares underlying dilutive securities have been excluded from the calculation of diluted earnings (loss) per share because their effect would reduce the loss per share. The calculation of weighted average common shares outstanding for the diluted calculation excludes options for 5,243,593 shares in 2001, 5,524,535 shares in 2002 and 4,058,695 shares in 2003 because they were not dilutive due to the fact that the exercise prices were greater than the weighted average market price of our common stock.

#### (16) Stockholder Rights Plan

Effective August 7, 1998, GTI adopted a Stockholder Rights Plan (the “Rights Plan”). Under the Rights Plan, one preferred stock purchase right (a “Right”) was distributed on

September 21, 1998 to stockholders of record on August 20, 1998 as a dividend on each share of common stock outstanding on the record date. Each share of common stock issued after the record date is accompanied by a Right.

When a Right becomes exercisable, it entitles the holder to buy one one-thousandth of a share of a new series of preferred stock for \$110. The Rights are subject to adjustment upon the occurrence of certain dilutive events. The Rights will become exercisable only when a person or group becomes the beneficial owner of 15% or more of the outstanding shares of common stock or 10 days after a person or group announces a tender offer to acquire beneficial ownership of 15% or more of the outstanding shares of common stock. No certificates representing the Rights will be issued, and the Rights are not transferable separately from the common stock, unless the Rights become exercisable.

Under certain circumstances, holders of Rights, except a person or group described above and certain related parties, will be entitled to purchase shares of common stock (or, in certain circumstances, other securities or assets) at 50% of the price at which the common stock traded prior to the acquisition or announcement (or 50% of the value of such other securities or assets). In addition, if GTI is acquired after the Rights become exercisable, the Rights will entitle those holders to buy the acquiring company's common shares at a similar discount.

GTI is entitled to redeem the Rights for one cent per Right prior to the time when the Rights become exercisable. If not redeemed, the Rights will expire on August 7, 2008.

The preferred stock issuable upon exercise of Rights consists of Series A Junior Participating Preferred Stock, par value \$.01 per share, of GTI. In general, each share of that preferred stock will be entitled to a minimum preferential quarterly dividend payment equal to the greater of \$10.00 per share or 1,000 times the quarterly dividend declared on the common stock, will be entitled to a liquidation preference of \$110,000 and will have 1,000 votes, voting together with the common stock.

**(17) Financial Information About the Parent, the Issuer, the Guarantors and the Subsidiaries Whose Securities Secure the Senior Notes and Related Guarantees**

On February 15, 2002, GrafTech Finance (the "**Issuer**") issued \$400 million aggregate principal amount of Senior Notes and, on May 6, 2002, \$150 million aggregate principal amount of additional Senior Notes. The Senior Notes have been guaranteed on a senior basis by GTI (the "**Parent**") and GrafTech Global, UCAR Carbon and other subsidiaries that together hold a substantial majority of our U.S. assets. The other subsidiaries are UCAR International Holdings Inc., UCAR International Trading Inc., UCAR Carbon Technology LLC, UCAR Composites Inc. and UCAR Holdings III Inc. The guarantors (other than the Parent) are collectively called the "**U.S. Guarantors.**" The guarantees of the Parent and the U.S. Guarantors are unsecured, except that the guarantee of UCAR Carbon has been secured by a junior pledge of all of the AET Pledged Stock, subject to the limitation that in no event will the value of the pledged portion of the AET Pledged Stock exceed 19.99% of the principal amount of the then outstanding Senior Notes. All of the guarantees are full, unconditional and joint and several, and the Issuer and each of the U.S. Guarantors are 100% owned by the Parent. Our other subsidiaries, which are not guarantors, are called the "**Non-Guarantors.**" The following table sets forth

condensed consolidating balance sheets at December 31, 2002 and December 31, 2003 and condensed consolidating statements of operations and cash flows for each of the years in the period ended December 31, 2003 of the Parent, the Issuer, the U.S. Guarantors and the Non-Guarantors. Provisions in the Senior Facilities restrict the payment of dividends by our subsidiaries to the Parent. At December 31, 2003, retained earnings of our subsidiaries subject to such restrictions were approximately \$598 million. Investments in subsidiaries are recorded on the equity basis. See Note 18 for a discussion regarding discontinued operations.

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**

**Condensed Consolidating Balance Sheet  
at December 31, 2003**

			At December 31, 2003			
			U.S.	Non-		
	Parent	Issuer	Guarantors	Guarantors	Eliminations	Consolidated
			(Dollars in millions)			
ASSETS						
Current Assets:						
Cash and cash equivalents .....	\$ —	\$ 13	\$ —	\$ 21	\$ —	\$ 34
Accounts and notes receivable, net.....	2	893	392	114	(1,275)	126
Inventories:						
Raw materials and supplies.....	—	—	2	45	—	47
Work in process.....	—	—	32	87	4	123
Finished goods.....	—	—	8	29	(3)	34
	—	—	42	161	1	204
Prepaid expenses (including deferred income taxes).....	—	—	10	27	(13)	24
Total current assets .....	2	906	444	323	(1,287)	388
Net fixed assets.....	—	—	36	307	(2)	341
Deferred income taxes, goodwill and other assets .....	48	30	(84)	138	106	238
Total assets .....	\$ 50	\$ 936	\$ 396	\$ 768	\$ (1,183)	\$ 967
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)						
Current liabilities:						
Accounts payable.....	\$ 61	\$ 20	\$ 178	\$ 79	\$ (240)	\$ 98
Short-term debt.....	188	14	297	526	(1,024)	1
Accrued income and other taxes.....	(13)	19	—	24	1	31
Other accrued liabilities.....	—	—	115	51	(2)	164
Liabilities of discontinued operations.....	—	—	2	—	(2)	—
Total current liabilities.....	236	53	592	680	(1,267)	294
Long-term debt.....	(58)	558	—	3	(1)	502
Other long-term obligations.....	—	50	125	49	1	225
Deferred income taxes.....	—	1	—	56	(14)	43
Minority stockholders' equity in consolidated entities .....	—	—	—	31	—	31
Stockholders' equity (deficit) .....	(128)	274	(321)	(51)	98	(128)
Total liabilities and stockholders' equity (deficit).....	\$ 50	\$ 936	\$ 396	\$ 768	\$ (1,183)	\$ 967

# GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES

## Condensed Consolidating Balance Sheet at December 31, 2002

	At December 31, 2002					
	Parent	Issuer	U.S. Guarantors	Non- Guarantors	Eliminations	Consolidated
	(Dollars in millions)					
ASSETS						
Current Assets:						
Cash and cash equivalents.....	\$ -	\$ -	\$ 4	\$ 7	\$ -	\$ 11
Accounts and notes receivable, net .....	-	752	466	255	(1,369)	104
Inventories:						
Raw materials and supplies.....	-	-	2	38	(1)	39
Work in process .....	-	-	30	71	1	102
Finished goods .....	-	-	10	23	(3)	30
	-	-	42	132	(3)	171
Prepaid expenses (including deferred income taxes) .....	-	-	8	13	-	21
Assets of discontinued operations .....	-	-	14	-	-	14
Total current assets .....	-	752	534	407	(1,372)	321
Net fixed assets .....	-	-	36	268	(4)	300
Deferred income taxes, goodwill and other assets .....	47	34	(33)	120	70	238
Total assets.....	\$ 47	\$ 786	\$ 537	\$ 795	\$ (1,306)	\$ 859
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)						
Current liabilities:						
Accounts payable.....	\$ 21	\$ 26	\$ 30	\$ 89	\$ (61)	\$ 105
Short-term debt .....	416	-	231	668	(1,297)	18
Accrued income and other taxes .....	(24)	(3)	36	18	(4)	23
Other accrued liabilities .....	-	-	36	39	(18)	57
Liabilities of discontinued operations .....	-	-	3	-	-	3
Total current liabilities .....	413	23	336	814	(1,380)	206
Long-term debt .....	-	711	-	2	-	713
Other long-term obligations .....	-	9	203	45	1	258
Deferred income taxes .....	-	(5)	(1)	36	3	33
Minority stockholders' equity in consolidated entities.....	-	-	-	30	-	30
Stockholders' equity (deficit).....	(366)	48	(1)	(132)	70	(381)
Total liabilities and stockholders' equity (deficit) .....	\$ 47	\$ 786	\$ 537	\$ 795	\$ (1,306)	\$ 859

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**

**Condensed Consolidating Statements of Operations  
for the years ended December 31, 2001, 2002 and 2003**

*For the Year Ended December 31, 2003*

	<i>Parent</i>	<i>Issuer</i>	<i>U.S. Guarantors</i>	<i>Non- Guarantors</i>	<i>Eliminations</i>	<i>Consolidated</i>
			<i>(Dollars in millions)</i>			
Net sales .....	\$ -	\$ -	\$ 234	\$ 629	\$ (151)	\$ 712
Cost of sales.....	-	-	186	509	(151)	544
Gross profit.....	-	-	48	120	-	168
Research and development, selling, administrative and other expenses, restructuring charges, impairment losses on long-lived and other assets, restricted stock vesting, antitrust investigations and related lawsuits and claims, corporate realignment and related expenses, and other (income) expenses, net .....	2	(32)	115	58	-	143
Interest income .....	(3)	(60)	-	-	63	-
Interest expense .....	36	45	-	27	(63)	45
Loss from continuing operations before provision for (benefit from) income taxes .....	(35)	47	(67)	35	-	(20)
Provision for (benefit from) income taxes .....	(108)	21	76	16	-	5
Loss from continuing operations before minority interest.....	73	26	(143)	19	-	(25)
Minority stockholders' share of income .....	-	-	-	1	-	1
Income from discontinued operations, net of taxes.....	-	-	1	-	-	1
Gain on sale of discontinued operations, net of taxes.....	-	-	1	-	-	1
Equity in earnings of subsidiaries .....	97	-	(18)	-	(79)	-
Net income (loss).....	\$ (24)	\$ 26	\$ (123)	\$ 18	\$ 79	\$ (24)

# GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES

## Condensed Consolidating Statements of Operations for the years ended December 31, 2001, 2002 and 2003 (continued)

For the Year Ended December 31, 2002						
			U.S.	Non-		
	<u>Parent</u>	<u>Issuer</u>	<u>Guarantors</u>	<u>Guarantors</u>	<u>Eliminations</u>	<u>Consolidated</u>
	(Dollars in millions)					
Net sales.....	\$ -	\$ -	\$ 211	\$ 529	\$ (144)	\$ 596
Cost of sales .....	-	-	175	408	(122)	461
Gross profit .....	-	-	36	121	(22)	135
Research and development, selling, administrative and other expenses, restructuring charges, impairment losses on long-lived and other assets, restricted stock vesting, antitrust investigations and related lawsuits and claims, corporate realignment and related expenses, and other (income) expenses, net .....	7	16	(53)	23	115	108
Interest income.....	-	(59)	-	(4)	63	-
Interest expense.....	21	62	5	35	(63)	60
Loss from continuing operations before provision for (benefit from) income taxes.....	(28)	(19)	84	67	(137)	(33)
Provision for (benefit from) income taxes.....	(10)	(6)	(19)	19	-	(16)
Loss from continuing operations before minority interest .....	(18)	(13)	103	48	(137)	(17)
Minority stockholders' share of income.....	-	-	-	2	-	2
Income from discontinued operations .....	-	-	1	-	-	1
Equity in earnings of subsidiaries .....	-	-	91	-	(91)	-
Net income (loss) .....	\$ (18)	\$ (13)	\$ 13	\$ 46	\$ (46)	\$ (18)

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**

**Condensed Consolidating Statements of Operations  
for the years ended December 31, 2001, 2002 and 2003  
(continued)**

<i>For the Year Ended December 31, 2001</i>						
	<i>Parent</i>	<i>Issuer</i>	<i>U.S. Guarantors</i>	<i>Non- Guarantors</i>	<i>Eliminations</i>	<i>Consolidated</i>
			<i>(Dollars in millions)</i>			
Net sales.....	\$ -	\$ -	\$ 226	\$ 547	\$ (139)	\$ 634
Cost of sales.....	-	-	201	372	(118)	455
Gross profit.....	-	-	25	175	(21)	179
Research and development, selling, administrative and other expenses, restructuring charges, impairment losses on long-lived and other assets, restricted stock vesting, antitrust investigations and related lawsuits and claims, corporate realignment and related expenses, and other (income) expenses, net.....	4	(2)	110	93	(13)	192
Interest income.....	-	(73)	(4)	(21)	98	-
Interest expense.....	34	74	25	24	(97)	60
Loss from continuing operations before provision for (benefit from) income taxes.....	(38)	1	(106)	79	(9)	(73)
Provision for (benefit from) income taxes.....	(15)	-	8	21	-	14
Loss from continuing operations before minority interest.....	(23)	1	(114)	58	(9)	(87)
Minority stockholders' share of income.....	-	-	-	2	-	2
Income from discontinued operations.....	-	-	2	-	-	2
Equity in earnings of subsidiaries.....	64	-	(47)	-	(17)	-
Net income (loss).....	\$ (87)	\$ 1	\$ (65)	\$ 56	\$ 8	\$ (87)



# GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES

## Condensed Consolidating Statements of Cash Flows for the years ended December 31, 2001, 2002 and 2003

### For the Year ended December 31, 2003

	<u>Parent</u>	<u>Issuer</u>	<u>U.S. Guarantors</u>	<u>Non- Guarantors</u>	<u>Eliminations</u>	<u>Consolidated</u>
			<i>(Dollars in millions)</i>			
Net cash provided by (used in) operating activities						
from continuing operations.....	\$ 228	\$ 3	\$ (81)	\$ 40	\$ (216)	\$ (26)
Net cash provided by operating activities from discontinued operations.....	-	-	1	-	-	1
Net cash provided by (used in) operating activities .....	228	3	(80)	40	(216)	(25)
Net cash provided by (used in) investing activities .....	-	(97)	11	121	(57)	(22)
Net cash provided by (used in) financing activities .....	228	107	65	(148)	273	69
Net increase (decrease) in cash and cash equivalents ..	-	13	(4)	13	-	22
Effect of exchange rate changes on cash and cash equivalents.....	-	-	-	1	-	1
Cash and cash equivalents at beginning of period .....	-	-	4	7	-	11
Cash and cash equivalents at end of period .....	\$ -	\$ 13	\$ -	\$ 21	\$ -	\$ 34

### For the Year ended December 31, 2002

	<u>Parent</u>	<u>Issuer</u>	<u>U.S. Guarantors</u>	<u>Non- Guarantors</u>	<u>Eliminations</u>	<u>Consolidated</u>
			<i>(Dollars in millions)</i>			
Net cash provided by (used in) operating activities						
from continuing operations.....	\$ (20)	\$ 76	\$ 81	\$ (188)	\$ (9)	\$ (60)
Net cash provided by operating activities from discontinued operations.....	-	-	-	-	-	-
Net cash provided by (used in) operating activities .....	(20)	76	81	(188)	(9)	(60)
Net cash provided by (used in) investing activities .....	-	127	91	77	(345)	(50)
Net cash provided by (used in) financing activities .....	20	(219)	(176)	100	354	79
Net increase (decrease) in cash and cash equivalents ..	-	(16)	(4)	(11)	-	(31)
Effect of exchange rate changes on cash and cash equivalents.....	-	-	-	4	-	4
Cash and cash equivalents at beginning of period .....	-	16	8	14	-	38
Cash and cash equivalents at end of period .....	\$ -	\$ -	\$ 4	\$ 7	\$ -	\$ 11

### For the Year ended December 31, 2001

	<u>Parent</u>	<u>Issuer</u>	<u>U.S. Guarantors</u>	<u>Non- Guarantors</u>	<u>Eliminations</u>	<u>Consolidated</u>
			<i>(Dollars in millions)</i>			
Net cash provided by (used in) operating activities						
from continuing operations.....	\$ (38)	\$ 15	\$ 183	\$ (63)	\$ (83)	\$ 14
Net cash provided by operating activities from discontinued operations.....	-	-	3	-	-	3
Net cash provided by (used in) operating activities .....	(38)	15	186	(63)	(83)	17
Net cash provided by (used in) investing activities .....	-	18	(427)	(71)	441	(39)
Net cash provided by (used in) financing activities .....	38	(48)	242	141	(358)	15
Net increase (decrease) in cash and cash equivalents ..	-	(15)	1	7	-	(7)
Effect of exchange rate changes on cash and cash equivalents.....	-	-	-	(2)	-	(2)
Cash and cash equivalents at beginning of period .....	-	31	7	9	-	47
Cash and cash equivalents at end of period .....	\$ -	\$ 16	\$ 8	\$ 14	\$ -	\$ 38

Unsecured intercompany term notes in an aggregate principal amount, at December 31, 2003, equal to \$528 million (based on currency exchange rates in effect at December 31, 2003), and guarantees of those unsecured intercompany term notes, issued to GrafTech Finance by certain of our foreign subsidiaries have been pledged by GrafTech Finance to secure the Senior Notes, subject to the limitation that at no time will the combined value of the pledged portion of any foreign subsidiary's unsecured intercompany term note and unsecured guarantee of unsecured intercompany term notes issued by other foreign subsidiaries exceed 19.99% of the principal amount of the then outstanding Senior Notes.

As described above, the guarantee of the Senior Notes by UCAR Carbon has been secured by a pledge of all of the AET Pledged Stock, subject to the limitation that at no time will the value of the pledged portion of the AET Pledged Stock exceed 19.99% of the principal amount of the then outstanding Senior Notes.

Rule 3-16 of Regulation S-X adopted by the SEC provides that, for each of the registrant's affiliates whose securities constitute a "substantial" portion of the collateral for registered securities, financial statements (that would be required to be filed if the affiliate were a registrant) must be filed with an annual report on Form 10-K. Under Rule 3-16(b), securities of a person will be deemed to constitute a "substantial" portion of the collateral if the aggregate principal amount, par value, or book value of securities as carried by the registrant, or the market value of such securities, whichever is the greatest, equals 20% or more of the principal amount of the registered securities. In this case, the pledges of the AET Pledged Stock and the unsecured intercompany term notes and related guarantees have been limited such that they will never be more than 19.99% of the principal amount of the then outstanding Senior Notes. Therefore, no such financial statements are required to be included in this Annual Report on Form 10-K.

#### **(18) Discontinued Operations**

As part of our ongoing asset sale program, we sold our non-strategic composite tooling business based in Irvine, California in June 2003 for approximately \$16 million. This business was previously included in "Other" for segment presentation in accordance with SFAS No. 131. As a result, under SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets," the composite tooling business is reflected as a discontinued operation. We have reflected prior year results of the composite tooling business as a discontinued operation on the Consolidated Statements of Operations and reclassified the assets and liabilities of the business separately on the Consolidated Balance Sheets.

The following table sets forth the results of the discontinued operation.

	<b>For the Year Ended December 31,</b>		
	<b><u>2001</u></b>	<b><u>2002</u></b>	<b><u>2003</u></b>
	(Dollars in millions)		
Net sales.....	\$20	\$17	\$9
Income before provision for income taxes.....	3	2	1

The following table sets forth the assets and liabilities of the discontinued operation.

	December 31, 2002	December 31, 2003
	(Dollars in millions)	
Current assets .....	\$ 6	\$ -
Property, plant and equipment, net .....	<u>8</u>	<u>-</u>
Total assets .....	<u>\$14</u>	<u>\$-</u>
Current liabilities .....	\$ 2	\$ -
Long-term liabilities .....	<u>1</u>	<u>-</u>
Total liabilities .....	<u>\$ 3</u>	<u>\$-</u>

## (19) Subsequent Events

### *Debenture Offering*

On January 22, 2004, GTI issued \$225 million aggregate principal amount of Debentures. Interest on the Debentures is payable semi-annually on January 15 and July 15 of each year, commencing July 15, 2004, at the rate of 1.625% per annum. The Debentures mature on January 15, 2024, unless earlier converted, redeemed or repurchased. The net proceeds from the offering were approximately \$217 million. We used the net proceeds to repay the remaining \$21 million of term loans outstanding under the Senior Facilities and to make a provisional payment of \$72 million to the EU Competition Authority against the EU antitrust fine. We intend to use the balance for general corporate purposes, including replacement of financing previously provided by factoring of accounts receivable and strategic acquisitions that are complementary to our businesses. Pending use for a specific corporate purpose, we intend to initially use the net proceeds to reduce the outstanding balance under the Revolving Facility, if any, and, to the extent that at the time there is no such amount outstanding, to invest in short-term, investment quality, interest-bearing securities or deposits.

A holder of Debentures may convert its Debentures into shares of our common stock at a conversion rate of 60.3136 shares per \$1,000 principal amount (equal to a conversion price of approximately \$16.58 per share), subject to adjustment upon certain events, only under the following circumstances:

- prior to January 15, 2019, in any fiscal quarter after the fiscal quarter ending March 31, 2004, if the last reported sale price of our common stock for at least 20 trading days during the 30 consecutive trading days ending on the first trading day of such fiscal quarter is greater than 125% of the then current conversion price;
- on or after January 15, 2019, at any time after the last reported sale price of our common stock on any date is greater than 125% of the then current conversion price;
- during the 5 business days after any 10 consecutive trading days in which the trading price per \$1,000 principal amount of Debentures for each such trading day was less than 98% of the product of the last reported sale price of our common stock and the then current conversion rate;

- if the credit rating or ratings on the Debentures are reduced by two rating categories below those initially assigned to the Debentures by S&P and Moody's;
- if the Debentures are called for redemption; or
- upon the occurrence of certain corporate transactions.

Upon conversion, GTI will have the right to deliver, in lieu of shares of our common stock, cash or a combination of cash and shares of our common stock.

Prior to January 15, 2011, GTI may redeem the Debentures, in whole or in part, at any time, for cash at a redemption price equal to 100% of principal amount, plus accrued and unpaid interest and liquidated damages, if any, only if the last reported sale price of our common stock has exceeded 125% of the then current conversion price for at least 20 trading days during the 30 consecutive trading days ending on the trading day prior to the date on which we mail the notice of redemption. If GTI so redeems the Debentures, GTI will make an additional "make whole" payment in cash, shares of our common stock or a combination thereof on the redeemed Debentures equal to the present value of all remaining scheduled payments of interest on the redeemed Debentures through January 15, 2011. On or after January 15, 2011, GTI may redeem the Debentures, in whole or in part, at any time, for cash at a redemption price equal to 100% of principal amount, plus accrued and unpaid interest and liquidated damages, if any.

A holder may require GTI to repurchase some or all of its Debentures on (i) January 15, 2011, January 15, 2014 or January 15, 2019, or (ii) if we experience a "fundamental change" at a repurchase price equal to 100% of principal amount, plus accrued and unpaid interest and liquidated damages, if any. For this purpose, a fundamental change occurs on:

- the date on which any person beneficially owns more than 35% of the total voting power of GTI;
- the date on which individuals, who on the issuance date of the Debentures were directors of GTI (or individuals nominated or elected by a vote of two-thirds of such directors previously so elected and nominated) cease to constitute a majority of GTI's Board of Directors then in office;
- the date on which a plan relating to the liquidation or dissolution of GTI is adopted;
- the date on which GTI merges or consolidates with or into another person, or another person merges into GTI, or all or substantially all of GTI's assets are sold (determined on a consolidated basis), with certain specified exceptions;
- the date on which GTI ceases to own, directly or indirectly, all of the voting power of GrafTech Global, UCAR Carbon or GrafTech Finance; or
- subject to certain exceptions, the date on which our common stock ceases to be listed on a U.S. national or regional securities exchange or approved for trading on the

NASDAQ National Market or similar system of automated dissemination of quotations of securities prices.

We may, at our option, pay the repurchase price in cash, shares of our common stock or a combination thereof, except that we will pay accrued and unpaid interest and liquidated damages, if any, in cash.

The Debentures are general unsecured senior obligations of GTI and rank equally with present and future senior debt of GTI. The Debentures rank senior to any subordinated debt of GTI and are effectively subordinated to any secured debt of GTI, to the extent of the value of the assets securing such debt.

GrafTech Finance, GrafTech Global and UCAR Carbon and other U.S. subsidiaries that together hold a substantial majority of our U.S. assets have guaranteed the Debentures on a senior unsecured basis. Each subsidiary guarantee is a general unsecured senior obligation of the subsidiary guarantor and ranks equally with any present and future senior debt of the subsidiary guarantor. Each subsidiary guarantee ranks senior to any subordinated debt of the subsidiary guarantor and is effectively subordinated to any secured debt of the subsidiary guarantor, to the extent of the value of the assets securing such debt. The Debentures and each subsidiary guarantee are structurally subordinated to present and future debt and other obligations of each subsidiary of GTI that is not a subsidiary guarantor.

Each of the guarantees of the Debentures is full, unconditional joint and severable. Payment under the Debentures could be required immediately upon the occurrence of any event of default under the Debentures. If a guarantor makes a payment under its guarantee, it would have the right under certain circumstances to seek contribution from the other guarantors.

In addition to the failure to pay principal and interest (including liquidated damages, if any) on the Debentures when due or to repurchase the Debentures when required, events of default under the Debentures include: failure to deliver shares of our common stock, cash or other property upon conversion of the Debentures; failure to pay at maturity or upon acceleration of indebtedness exceeding \$10 million to the extent not covered by insurance; and certain events involving bankruptcy.

We have agreed to file a shelf registration statement under the Securities Act covering resales of the Debentures and the shares of common stock issuable upon conversion, redemption or repurchase thereof (including upon payment of any "make whole" payment). If the registration statement is not filed by April 21, 2004 or has not become effective by July 20, 2004, we have agreed to pay liquidated damages to holders of Debentures. Liquidated damages will be paid semi-annually in arrears on each January 15 and July 15 and will accrue at a rate per annum not to exceed 0.50% of principal amount or the then current conversion price, as applicable. Under certain circumstances, GTI has the right to suspend resales under the registration statement.

#### *Bank Amendment*

In January 2004, the Senior Facilities were amended to, among other things:

- permit the issuance and sale of the Debentures and the related subsidiary guarantees;
- permit use of the net proceeds from the issuance and sale of the Debentures without any otherwise required reduction in funds available under the Revolving Facility (except that the €25 million of availability under the Revolving Facility reserved for use solely to pay or secure payment of the EU antitrust fine was eliminated, which reduced our availability under the Revolving Facility from €200 million to €175 million); and
- provide additional flexibility to make investments (including repurchases in 2004 of up to \$50 million aggregate principal amount of Senior Notes with the net proceeds).

#### *EU Antitrust Fine*

In February 2004, we posted a \$72 million provisional payment with the EU Competition Authority against the EU antitrust fine. The provisional payment included \$9 million for accrued interest for the period from October 2001 to the date of the provisional payment at the rate of 6.04% per annum. The EU Competition Authority has advised us that its position is that the provisional payment should have included accrued interest at the rate of 8.04% per annum. We have advised the EU Competition Authority that we disagree with its position and will file an interim appeal challenging its position, if necessary.

A provisional payment constitutes the furnishing of cash collateral intended to secure payment to the EU Competition Authority of a fine and any interest thereon that is ultimately determined to be due, is not an admission of or acquiescence to any liability and will not prejudice our appeal challenging, among other things, the amount of the EU antitrust fine. We will earn interest on the amount paid at an annual rate of 2.1% until the Court's decision on our main appeal challenging, among other things, the amount of the EU antitrust fine, including the accrual of interest and the rate thereof is issued and becomes final. Such payment does not reflect a change in our assessment of the outcome of our appeal.

In connection with our provisional payment, we withdrew the interim appeal that we had filed in September 2003 to the Court to waive the requirement for provisional payment of the EU antitrust fine or delivery of a letter of credit as collateral security for payment thereof or to allow us to provide alternative security for payment during the period prior to the Court's decision on our main appeal.

#### *Bulk Graphite Lawsuit*

In March 2004, the NJ District Court approved the agreement that we had reached in the 2003 first half to settle the bulk graphite lawsuit.

#### *Antitrust Earnings Charges and Payments*

At December 31, 2003, after giving effect to our provisional payment of \$72 million to the EU Competition Authority against the EU antitrust fine, \$53 million remained in our reserve for potential liabilities and expenses in connection with antitrust investigations and related

lawsuits and claims. The remaining amount of the reserve is unfunded and is available for the DOJ antitrust fine and other matters.

#### *Lawsuit Initiated by Us Against Our Former Parents*

In January 2004, the U.S. District Court for the Southern District of New York granted the defendants' motion to dismiss the lawsuit we commenced against our former parents, Mitsubishi and Union Carbide. We have appealed the grant of the motion to dismiss as well as the grant in November 2002 of a motion to disqualify certain of our counsel to the U.S. Second Circuit Court of Appeals.

#### *Financial Information About the Issuer Parent and the Guarantors Relating to the Debentures*

On January 22, 2004, GrafTech International Ltd. (the "**Issuer Parent**") issued \$225 million aggregate principal amount of Debentures. The Debentures have been guaranteed on a senior basis by GrafTech Finance, GrafTech Global, UCAR Carbon and other subsidiaries that together hold a substantial majority of our U.S. assets. The other subsidiaries are UCAR International Holdings Inc., UCAR International Trading Inc., UCAR Carbon Technology LLC and UCAR Holdings III Inc. The guarantors are collectively called the "**U.S. Guarantors**." The guarantees of the U.S. Guarantors are unsecured. All of the guarantees are full, unconditional and joint and several, and the U.S. Guarantors are 100% owned by the Issuer Parent. Our other subsidiaries, which are not guarantors, are called the "**Non-Guarantors**." The following table sets forth condensed consolidating balance sheets at December 31, 2002 and December 31, 2003 and condensed consolidating statements of operations and cash flows for each of the years in the period ended December 31, 2003 of the Issuer Parent, the U.S. Guarantors and the Non-Guarantors. Provisions in the Senior Facilities restrict the payment of dividends by our subsidiaries to the Issuer Parent. At December 31, 2003, retained earnings of our subsidiaries subject to such restrictions were approximately \$598 million. Investments in subsidiaries are recorded on the equity basis. See Note 18 for a discussion regarding discontinued operations.

# GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES

## Condensed Consolidating Balance Sheet at December 31, 2003

	At December 31, 2003				
	Issuer Parent	U.S. Guarantors	Non- Guarantors	Eliminations	Consolidated
	(Dollars in millions)				
ASSETS					
Current Assets:					
Cash and cash equivalents .....	\$ —	\$ 13	\$ 21	\$ —	\$ 34
Accounts and notes receivable, net.....	2	1,285	114	(1,275)	126
Inventories:					
Raw materials and supplies .....	—	2	45	—	47
Work in process.....	—	32	87	4	123
Finished goods.....	—	8	29	(3)	34
	—	42	161	1	204
Prepaid expenses and deferred income taxes.....	—	10	27	(13)	24
Current assets of discontinued operations .....	—	—	—	—	—
Total current assets .....	2	1,350	323	(1,287)	388
Net fixed assets .....	—	36	307	(2)	341
Deferred income taxes and other assets.....	48	(54)	138	106	238
Total assets .....	<u>\$ 50</u>	<u>\$ 1,332</u>	<u>\$ 768</u>	<u>\$ (1,183)</u>	<u>\$ 967</u>
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)					
Current liabilities:					
Accounts payable .....	\$ 61	\$ 198	\$ 79	\$ (240)	\$ 98
Short-term debt.....	188	311	526	(1,024)	1
Accrued income and other taxes.....	(13)	19	24	1	31
Other accrued liabilities.....	—	115	51	(2)	164
Current liabilities of discontinued operations.....	—	2	—	(2)	—
Total current liabilities .....	236	645	680	(1,267)	294
Long-term debt.....	(58)	558	3	(1)	502
Other long-term obligations .....	—	175	49	1	225
Deferred income taxes.....	—	1	56	(14)	43
Minority stockholders' equity in consolidated entities....	—	—	31	—	31
Stockholders' equity (deficit).....	(128)	(47)	(51)	98	(128)
Total liabilities and stockholders' equity (deficit).....	<u>\$ 50</u>	<u>\$ 1,332</u>	<u>\$ 768</u>	<u>\$ (1,183)</u>	<u>\$ 967</u>



# GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES

## Condensed Consolidating Balance Sheet at December 31, 2002

	At December 31, 2002				
	Issuer	U.S.	Non-		
	Parent	Guarantors	Guarantors	Eliminations	Consolidated
	(Dollars in millions)				
ASSETS					
Current Assets:					
Cash and cash equivalents .....	\$ -	\$ 4	\$ 7	\$ -	\$ 11
Accounts and notes receivable, net .....	-	1,218	255	(1,369)	104
Inventories:					
Raw materials and supplies .....	-	2	38	(1)	39
Work in process .....	-	30	71	1	102
Finished goods .....	-	10	23	(3)	30
	-	42	132	(3)	171
Prepaid expenses and deferred income taxes .....	-	8	13	-	21
Current assets of discontinued operations .....	-	14	-	-	14
Total current assets .....	-	1,286	407	(1,372)	321
Net fixed assets .....	-	36	268	(4)	300
Deferred income taxes and other assets .....	47	1	120	70	238
Total assets .....	\$ 47	\$ 1,323	\$ 795	\$ (1,306)	\$ 859
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)					
Current liabilities:					
Accounts payable .....	\$ 21	\$ 56	\$ 89	\$ (61)	\$ 105
Short-term debt .....	416	231	668	(1,297)	18
Accrued income and other taxes .....	(24)	33	18	(4)	23
Other accrued liabilities .....	-	36	39	(18)	57
Current liabilities of discontinued operations .....	-	3	-	-	3
Total current liabilities .....	413	359	814	(1,380)	206
Long-term debt .....	-	711	2	-	713
Other long-term obligations .....	-	212	45	1	258
Deferred income taxes .....	-	(6)	36	3	33
Minority stockholders' equity in consolidated entities ..	-	-	30	-	30
Stockholders' equity (deficit) .....	(366)	47	(132)	70	(381)
Total liabilities and stockholders' equity (deficit) ...	\$ 47	\$ 1,323	\$ 795	\$ (1,306)	\$ 859

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**

**Condensed Consolidating Statements of Operations  
for the years ended December 31, 2001, 2002 and 2003**

	<i>For the Year Ended December 31, 2003</i>				
	<i>Issuer</i>	<i>U.S.</i>	<i>Non-</i>		
	<i>Parent</i>	<i>Guarantors</i>	<i>Guarantors</i>	<i>Eliminations</i>	<i>Consolidated</i>
		<i>(Dollars in millions)</i>			
Net sales.....					
	\$ —	\$ 234	\$ 629	\$ (151)	\$ 712
Cost of sales.....	—	186	509	(151)	544
Gross profit.....	—	48	120	—	168
Research and development, selling, administrative and other expenses, restructuring charges, impairment losses on long-lived and other assets, restricted stock vesting, antitrust investigations and related lawsuits and claims, corporate realignment and related expenses, and other (income) expenses, net.....	2	83	58	—	143
Interest income.....	(3)	(60)	—	63	—
Interest expense.....	36	45	27	(63)	45
Income (loss) before provision for (benefits from) income taxes.....	(35)	(20)	35	—	(20)
Provision for (benefit from) income taxes.....	(108)	97	16	—	5
Income (loss) of consolidated entities.....	73	(117)	19	—	(25)
Minority stockholders' share of income.....	—	—	1	—	1
Income from discontinued operations, net of taxes.....	—	1	—	—	1
Gain on sale of discounted operations, net of taxes.....	—	1	—	—	1
Equity in earnings of subsidiaries.....	97	(18)	—	(79)	—
Net income (loss).....	\$ (24)	\$ (97)	\$ 18	\$ 79	\$ (24)

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**

**Condensed Consolidating Statements of Operations  
for the years ended December 31, 2001, 2002 and 2003  
(continued)**

<i>For the Year Ended December 31, 2002</i>					
<i>(Dollars in millions)</i>					
	<i>Issuer Parent</i>	<i>U.S. Guarantors</i>	<i>Non- Guarantors</i>	<i>Eliminations</i>	<i>Consolidated</i>
Net sales .....	\$ —	\$ 211	\$ 529	\$ (144)	\$ 596
Cost of sales .....	—	175	408	(122)	461
Gross profit.....	—	36	121	(22)	135
Research and development, selling, administrative and other expenses, restructuring charges, impairment losses on long-lived and other assets, restricted stock vesting, antitrust investigations and related lawsuits and claims, corporate realignment and related expenses, and other (income) expenses, net .....	7	(37)	23	115	108
Interest income .....	—	(59)	(4)	63	—
Interest expense .....	21	67	35	(63)	60
Income (loss) before provision for (benefits from) income taxes.....	(28)	65	67	(137)	(33)
Provision for (benefit from) income taxes.....	(10)	(25)	19	—	(16)
Income (loss) of consolidated entities .....	(18)	90	48	(137)	(17)
Minority stockholders' share of income .....	—	—	2	—	2
Income from discontinued operations .....	—	1	—	—	1
Equity in earnings of subsidiaries.....	—	91	—	(91)	—
Net income (loss).....	\$ (18)	\$ —	\$ 46	\$ (46)	\$ (18)

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**

**Condensed Consolidating Statements of Operations  
for the years ended December 31, 2001, 2002 and 2003  
(continued)**

	<i>Issuer Parent</i>	<i>For the Year Ended December 31, 2001</i>			<i>Consolidated</i>
		<i>U.S. Guarantors</i>	<i>Non- Guarantors</i>	<i>Eliminations</i>	
		<i>(Dollars in millions)</i>			
Net sales .....	\$ —	\$ 226	\$ 547	\$ (139)	\$ 634
Cost of sales .....	—	201	372	(118)	455
Gross profit .....	—	25	175	(21)	179
Research and development, selling, administrative and other expenses, restructuring charges, impairment losses on long-lived and other assets, restricted stock vesting, antitrust investigations and related lawsuits and claims, corporate realignment and related expenses, and other (income) expenses, net .....	4	108	93	(13)	192
Interest income .....	—	(77)	(21)	98	—
Interest expense .....	34	99	24	(97)	60
Income (loss) before provision for (benefits from) income taxes .....	(38)	(105)	79	(9)	(73)
Provision for (benefit from) income taxes .....	(15)	8	21	—	14
Income (loss) of consolidated entities .....	(23)	(113)	58	(9)	(87)
Minority stockholders' share of income .....	—	—	2	—	2
Income from discontinued operations .....	—	2	—	—	2
Equity in earnings of subsidiaries .....	64	(47)	—	(17)	—
Net income (loss) .....	\$ (87)	\$ (64)	\$ 56	\$ 8	\$ (87)

**GRAFTECH INTERNATIONAL LTD. AND SUBSIDIARIES**

**Condensed Consolidating Statements of Cash Flows  
for the years ended December 31, 2001, 2002 and 2003**

	For the Year ended December 31, 2003				
	Issuer	U.S.	Non-		
	Parent	Guarantors	Guarantors	Eliminations	Consolidated

	For the Year ended December 31, 2002				
	Issuer	U.S.	Non-		
	Parent	Guarantors	Guarantors	Eliminations	Consolidated

	For the Year ended December 31, 2001				
	Issuer Parent	U.S. Guarantors	Non- Guarantors	Eliminations	Consolidated
	(Dollars in millions)				
Net cash provided by (used in) operating activities from continuing operations.....	\$ (38)	\$ 198	\$ (63)	\$ (83)	\$ 14
Net cash provided by operating activities from discontinued operations .....	-	3	-	-	3
Net cash provided by (used in) operating activities .....	(38)	201	(63)	(83)	17
Net cash provided by (used in) investing activities .....	-	(409)	(71)	441	(39)
Net cash provided by (used in) financing activities .....	38	194	141	(358)	15
Net increase (decrease) in cash and cash equivalents.....	-	(14)	7	-	(7)
Effect of exchange rate changes on cash and cash equivalents.....	-	-	(2)	-	(2)
Cash and cash equivalents at beginning of period.....	-	38	9	-	47
Cash and cash equivalents at end of period.....	\$ -	\$ 24	\$ 14	\$ -	\$ 38

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

None.

**Item 9A. Controls and Procedures**

Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we have evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this Report, and, based on that evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that these controls and procedures are effective. There were no significant changes in our internal controls or in other factors that could significantly affect these controls subsequent to the date of that evaluation.

Disclosure controls and procedures are our controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

A control system is subject to inherent limitations and, as a result, can provide only reasonable, not absolute, assurance that the system's objectives will be achieved. In the first instance, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, decision-making in connection with system design or operation can be faulty, and breakdowns can occur because of simple error or mistake. In addition, controls can be circumvented by the acts of single individuals, by collusion of two or more individuals, or by management override of the controls. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated objectives under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. In light of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

### PART III

#### Items 10 to 14 (inclusive).

Except as set forth below, the information required by Items 10, 11, 12, 13 and 14 will appear in the GrafTech International Ltd. Proxy Statement for the Annual Meeting of Stockholders to be held on May 26, 2004, which will be filed pursuant to Regulation 14A under the Securities Exchange Act of 1934 and is incorporated by reference in this Report pursuant to General Instruction G(3) of Form 10-K (other than the portions thereof not deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934). In addition, the information set forth below is provided as required by Item 10 and the listing standards of the NYSE.

#### Executive Officers and Directors

The following table sets forth information with respect to our current executive officers and directors, including their ages, as of March 1, 2004. There are no family relationships between any of our executive officers.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Craig S. Shular.....	51	Chief Executive Officer, President and Director
Scott C. Mason.....	45	President, Synthetic Graphite Line of Business
John J. Wetula.....	45	President, Natural Graphite Line of Business
Corrado F. De Gasperis ....	38	Vice President, Chief Financial Officer and Chief Information Officer
Karen G. Narwold.....	44	Vice President, General Counsel, Human Resources and Secretary
Gilbert E. Playford.....	56	Chairman of the Board
R. Eugene Cartledge.....	74	Director
Mary B. Cranston.....	56	Director
John R. Hall .....	71	Director
Harold E. Layman.....	57	Director
Ferrell P. McClean.....	57	Director
Michael C. Nahl.....	61	Director

#### Executive Officers

**Craig S. Shular** became Chief Executive Officer and a director in January 2003 and has served as President since May 2002. From May 2002 through December 2002, he also served as Chief Operating Officer. From August 2001 to December 2002, he served as Executive Vice President of our former Graphite Power Systems Division. He served as Vice President and Chief Financial Officer from January 1999, with the additional duties of Executive Vice President, Electrode Sales and Marketing from February 2000. From 1976 through 1998, he held various financial, production and business management positions at Union Carbide, including the Carbon Products Division, from 1976 to 1979. We are the successor to the Carbon Products Division of Union Carbide.

**Scott C. Mason** became President of our synthetic graphite line of business in January 2003. From February 2001 through December 2002, he was Executive Vice President of our former Advanced Energy Technology Division. He served as Chief Financial Officer and Vice President of AET and our Director of Mergers and Acquisitions from April 2000 to March 2001. Prior to joining us, Mr. Mason was Vice President-Supply Chain Logistics for Union Carbide. From 1996 to 1999, Mr. Mason served as Director of Operations and then as Business Director for the Unipol Polymers Business of Union Carbide. Mr. Mason served from 1981 to 1996 in various financial, sales and marketing, operations and mergers and acquisition management positions at Union Carbide. He began his career in 1981 in the Chemicals and Plastics Division of Union Carbide.

**John J. Wetula** became President of our natural graphite line of business in January 2003. From July 1999 to December 2002, he served as President of AET. From July 1998 to June 1999, he served as our Director of Export Sales. From October 1996 to June 1998, he was General Manager of our GRAFOIL® product line. He is a chemical engineering and MBA graduate of Cleveland State University.

**Corrado F. De Gasperis** became Chief Financial Officer in May 2001 in addition to his duties as Vice President and Chief Information Officer, which he assumed in February 2000. He served as Controller from June 1998 to February 2000. From 1987 through June 1998, he was with KPMG LLP, most recently as Senior Assurance Manager in the Manufacturing, Retail and Distribution Practice. KPMG had announced his admittance into their partnership effective July 1, 1998.

**Karen G. Narwold** became Vice President, General Counsel and Secretary in September 1999 and also assumed responsibility for the human resources department effective January 2002. She joined our Law Department in July 1990 and served as Assistant General Counsel from June 1995 to January 1999 and Deputy General Counsel from January 1999 to September 1999. She was an associate with Cummings & Lockwood from 1986 to 1990.

### **Directors**

**Gilbert E. Playford** has been a director since 1998. Mr. Playford has served as the Chairman of the Board since September 1999. Mr. Playford served as Chief Executive Officer from June 1998 through December 2002 and as President from June 1998 until May 2002. From January 2003 until his retirement in June 2003, Mr. Playford served as Chairman of the Board in an executive capacity. Mr. Playford joined Union Carbide in 1972 and held various management positions, including Treasurer and Principal Financial Officer, until he resigned in January 1996. In his capacity as Principal Financial Officer of Union Carbide, he also served as a nominee of Union Carbide on GrafTech's Board of Directors from 1992 until our leveraged equity recapitalization in January 1995. Mr. Playford is currently a director and non-executive Deputy Chairman of LionOre Mining International Ltd.

**R. Eugene Cartledge** has been a director since 1996. From 1986 until his retirement in 1994, Mr. Cartledge was the Chairman of the Board and Chief Executive Officer of Union Camp Corporation. Mr. Cartledge retired as Chairman of the Board of Savannah Foods & Industries Inc. in December 1997, and retired as a director of Delta Airlines, Inc. and



Sunoco, Inc. in May 2002. He is currently a director of Formica Corporation and Blount International, Inc., and President of the Cartledge Foundation.

**Mary B. Cranston** has been a director since 2000. Ms. Cranston is a partner and has served since 1999 as Chairperson of Pillsbury Winthrop LLP, an international law firm. Ms. Cranston is based in San Francisco, California. Ms. Cranston has been practicing complex litigation, including antitrust, telecommunications and securities litigation, with Pillsbury Winthrop LLP since 1975. She is a director of the San Francisco Chamber of Commerce, the Bay Area Council and the Commonwealth Club, and a trustee of the San Francisco Ballet and Stanford University.

**John R. Hall** has been a director since 1995. Mr. Hall was Chairman of the Board and Chief Executive Officer of Ashland Inc. from 1981 until his retirement in January 1997 and September 1996, respectively. Mr. Hall had served in various engineering and managerial capacities at Ashland Inc. since 1957. He retired as Chairman of Arch Coal Inc. in 1998. He served as a director of Reynolds Metals Company from 1985 to 2000. Mr. Hall currently serves as a member of the Boards of Bank One Corporation, Humana Inc. and USEC Inc. Mr. Hall graduated from Vanderbilt University in 1955 with a degree in Chemical Engineering and later served as Vanderbilt's Board Chairman from 1995 to 1999. Mr. Hall also serves as Chairman of the Blue Grass Community Foundation and the Commonwealth Fund for Kentucky Educational Television, and as President of the Markey Cancer Center Foundation.

**Harold E. Layman** has been a director since 2003. From 2001 until his retirement in 2002, Mr. Layman was President and Chief Executive Officer of Blount International, Inc. Prior thereto, Mr. Layman served in other capacities with Blount International, including President and Chief Operating Officer from 1999 to 2001, Executive Vice President and Chief Financial Officer from 1997 to 2000, and Senior Vice President and Chief Financial Officer from 1993 to 1997. From 1981 through 1992, he held various financial management positions with VME Group/Volvo AB. From 1970 to 1980, Mr. Layman held various operations and financial management positions with Ford Motor Company. He is currently a director of Blount International, Grant Prideco, Inc., Infinity Property and Casualty Corporation and Von Hoffman Holdings Inc.

**Ferrell P. McClean** has been a director since 2002. Ms. McClean was a Managing Director and Senior Advisor to the head of the Global Oil & Gas Group in Investment Banking at J.P. Morgan Chase & Co. from 2000 through the end of 2001. She joined J.P. Morgan & Co. Incorporated in 1969 and founded the Leveraged Buyout and Restructuring Group within the Mergers & Acquisitions Group in 1986. From 1991 until 2000, Ms. McClean was a Managing Director and co-headed the Global Energy Group within the Investment Banking Group at J.P. Morgan & Co. Ms. McClean is currently a director of Unocal Corporation.

**Michael C. Nahl** has been a director since 1999. Mr. Nahl is Senior Vice President and Chief Financial Officer of Albany International Corporation, a manufacturer of paper machine clothing, which are the belts of fabric that carry paper stock through the paper production process. Mr. Nahl joined Albany International Corporation in 1981 as Group Vice President, Corporate and was appointed to his present position in 1983. Mr. Nahl is currently a director of Lindsay Manufacturing Co.

## NYSE Certification

Mr. Shular, Chief Executive Officer and President, has certified to the NYSE, pursuant to Section 303A.12 of the NYSE's listing standards, that he is unaware of any violation by us of the NYSE's corporate governance listing standards as of the date of this Report.

## PART IV

### Item 15. Exhibits, Financial Statement Schedules, and Reports on Form 8-K

#### (a)(1) Financial Statements

See Index to Consolidated Financial Statements at page 110 of this Report.

#### (2) Financial Statement Schedules

None.

#### (b) Reports on Form 8-K

The following report on Form 8-K was filed during the 2004 fourth quarter.

- (1) Current Report on Form 8-K dated October 1, 2003, filed with the SEC on October 2, 2003.

#### (c) Exhibits

The exhibits listed in the following table have been filed with this Report.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
2.1.0(1)	Recapitalization and Stock Purchase and Sale Agreement dated as of November 14, 1994 among Union Carbide Corporation, Mitsubishi Corporation, GrafTech International Ltd. and GrafTech International Acquisition Inc. and Guaranty made by Blackstone Capital Partners II Merchant Banking Fund L.P. and Blackstone Offshore Capital Partners II L.P.
2.2.0(2)	Amended and Restated Stockholders' Agreement dated as of February 29, 1996 among Blackstone Capital Partners II Merchant Banking Fund L.P., Blackstone Offshore Capital Partners II L.P., Blackstone Family Investment Partnership II L.P., Chase Equity Associates and GrafTech International Ltd.
2.3.0(1)	Exchange Agreement dated as of December 15, 1993 by and among Union Carbide Corporation, Union Carbide Chemicals and Plastics Company Inc., Mitsubishi Corporation and GrafTech International Ltd.
2.4.0(1)	Stock Purchase and Sale Agreement dated as of November 9, 1990 among Mitsubishi Corporation, Union Carbide Corporation and UCAR Carbon Company Inc.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
2.5.0(1)	Letter Agreement dated January 26, 1995 with respect to termination of the Stockholders' Agreement dated as of November 9, 1990 among Mitsubishi Corporation, Union Carbide Corporation and UCAR Carbon Company Inc.
2.6.0(1)	Settlement Agreement dated as of November 30, 1993 among Mitsubishi Corporation, Union Carbide Corporation and UCAR Carbon Company Inc.
2.7.0(1)	Transfer Agreement dated January 1, 1989 between Union Carbide Corporation and UCAR Carbon Company Inc.
2.7.1(1)	Amendment No. 1 to such Transfer Agreement dated December 31, 1989.
2.7.2(1)	Amendment No. 2 to such Transfer Agreement dated July 2, 1990.
2.7.3(1)	Amendment No. 3 to such Transfer Agreement dated as of February 25, 1991.
2.8.0(1)	Amended and Restated Realignment Indemnification Agreement dated as of June 4, 1992 among Union Carbide Corporation, Union Carbide Chemicals and Plastics Company Inc., Union Carbide Industrial Gases Inc., UCAR Carbon Company Inc. and Union Carbide Coatings Service Corporation.
2.9.0(1)	Environmental Management Services and Liabilities Allocation Agreement dated as of January 1, 1990 among Union Carbide Corporation, Union Carbide Chemicals and Plastics Company Inc., UCAR Carbon Company Inc., Union Carbide Industrial Gases Inc. and Union Carbide Coatings Service Corporation.
2.9.1(1)	Amendment No. 1 to such Environmental Management Services and Liabilities Allocation Agreement dated as of June 4, 1992.
2.10.0(4)	Trade Name and Trademark License Agreement dated March 1, 1996 between Union Carbide Corporation and UCAR Carbon Technology Corporation.
2.11.0(1)	Employee Benefit Services and Liabilities Agreement dated January 1, 1990 between Union Carbide Corporation and UCAR Carbon Company Inc.
2.11.1(1)	Amendment to such Employee Benefit Services and Liabilities Agreement dated January 15, 1991.
2.11.2(1)	Supplemental Agreement to such Employee Benefit Services and Liabilities Agreement dated February 25, 1991.
2.12.0(1)	Letter Agreement dated December 31, 1990 among Union Carbide Chemicals and Plastics Company Inc., UCAR Carbon Company Inc., Union Carbide Grafite, Inc. and Union Carbide Corporation.
3.1.0(3)	Amended and Restated Certificate of Incorporation of GrafTech International Ltd.
3.1.1(9)	Certificate of Designations of Series A Junior Participating Preferred Stock.
3.1.2(17)	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of GrafTech International Ltd.
3.1.3(21)	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of GrafTech International Ltd.
3.2.0(19)	Amended and Restated By-Laws of GrafTech International Ltd. dated December 13, 2002.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
4.1.0(16)	Indenture dated as of February 15, 2002 among GrafTech Finance Inc., GrafTech International Ltd., GrafTech Global Enterprises Inc., UCAR Carbon Company Inc., and the Subsidiary Guarantors from time to time party thereto and State Street Bank and Trust Company, as Trustee.
4.1.1(17)	First Supplemental Indenture, dated as of April 30, 2002, among UCAR Finance Inc., GrafTech International Ltd. (formerly known as UCAR International Inc.), UCAR Global Enterprises Inc., UCAR Carbon Company Inc., UCAR Composites Inc., UCAR Carbon Technology LLC, UCAR Holdings III Inc. and UCAR International Trading Inc. and State Street Bank and Trust Company.
4.2.0(16)	Registration Rights Agreement dated as of February 15, 2002 among GrafTech International Ltd., each of the Subsidiaries listed therein, Credit Suisse First Boston Corporation, J.P. Morgan Securities Inc., ABN AMRO Incorporated, Fleet Securities Inc. and Scotial Capital (USA) Inc.
4.2.1(17)	Registration Rights Agreement dated as of May 6, 2002 among GrafTech International Ltd. (formerly known as UCAR International Inc.), each of the Subsidiaries listed therein, Credit Suisse First Boston Corporation and J.P. Morgan Securities Inc.
4.3.0*	Indenture dated as of January 22, 2004 among GrafTech International Ltd., GrafTech Finance Inc., GrafTech Global Enterprises Inc., UCAR Carbon Company Inc., UCAR International Trading Inc. and UCAR Carbon Technology LLC and U.S. Bank National Association.
4.4.0(9)	Rights Agreement dated as of August 7, 1998 between GrafTech International Ltd. and The Bank of New York, as Rights Agent.
4.4.1(16)	Amendment No. 1 to such Rights Agreement dated as of November 1, 2000.
4.4.2(18)	Amendment No. 2 to such Rights Agreement dated as of May 21, 2002.
4.5.0*	Resale Registration Rights Agreement dated January 22, 2004 among GrafTech International Ltd., the guarantors listed therein, and J.P. Morgan Securities Inc.
10.1.0(11)	Credit Agreement dated as of February 22, 2000 among GrafTech International Ltd., GrafTech Global Enterprises Inc., GrafTech Finance Inc., the LC Subsidiaries from time to time party hereto, the Lenders from time to time party thereto, and Morgan Guaranty Trust Company of New York, as Administrative Agent.
10.1.1(12)	First Amendment to such Credit Agreement dated as of October 11, 2000.
10.1.2(13)	Second Amendment to such Credit Agreement dated as of April 25, 2001.
10.1.3(13)	Third Amendment to such Credit Agreement dated as of July 10, 2001.
10.1.4(16)	Forth Amendment to such Credit Agreement dated as of December 6, 2001.
10.1.5(16)	Fifth Amendment to such Credit Agreement dated as of January 18, 2002.
10.1.6(17)	Sixth Amendment to such Credit Agreement dated as of February 22, 2000.
10.1.7*	Seventh Amendment to such Credit Agreement dated as of September 19, 2003.
10.1.8*	Eighth Amendment to such Credit Agreement dated as of January 12, 2004.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
10.2.0(16)	Reaffirmation Agreement dated as of February 15, 2002 among GrafTech International Ltd., GrafTech Global Enterprises Inc., GrafTech Finance, Inc., each Subsidiary Loan Party named therein, each LC Subsidiary named therein and JPMorgan Chase Bank as Administrative Agent and Collateral Agent under the Credit Agreement.
10.2.1(17)	Reaffirmation Agreement, dated as of May 6, 2002, among UCAR Finance Inc., GrafTech International Ltd. (formerly known as UCAR International Inc.), UCAR Global Enterprises Inc., UCAR Carbon Company Inc., UCAR Composites Inc., UCAR Carbon Technology LLC, UCAR Holdings III Inc. and UCAR International Trading Inc. and State Street Bank and Trust Company.
10.3.0(11)	Guarantee Agreement dated as of February 22, 2000 made by GrafTech International Ltd., GrafTech Global Enterprises Inc., GrafTech Finance Inc. and each Domestic Subsidiary party thereto in favor of Morgan Guaranty Trust Company of New York, as Collateral Agent for the Secured Parties.
10.4.0(11)	Security Agreement dated as of February 22, 2000 made by GrafTech International Ltd., GrafTech Global Enterprises Inc., GrafTech Finance Inc. and the subsidiaries of GrafTech from time to time party thereto, in favor of Morgan Guaranty Trust Company of New York, as Collateral Agent for the Secured Parties.
10.5.0(11)	Indemnity, Subrogation and Contribution Agreement dated as of February 22, 2000 among GrafTech International Ltd., GrafTech Global Enterprises Inc., GrafTech Finance Inc., each of the Domestic Subsidiaries party thereto and Morgan Guaranty Trust Company of New York, as Collateral Agent for the Secured Parties.
10.6.0(11)	Domestic Pledge Agreement dated as of February 22, 2000 by GrafTech International Ltd., GrafTech Global Enterprises Inc., GrafTech Finance Inc. and the direct and indirect subsidiaries of GrafTech that are signatories thereto in favor of Morgan Guaranty Trust Company of New York, as Collateral Agent for the Secured Parties.
10.7.0(11)	Intellectual Property Security Agreement dated as of February 22, 2000 made by GrafTech International Ltd., GrafTech Global Enterprises Inc., GrafTech Finance Inc. and the subsidiaries of GrafTech from time to time party thereto in favor of Morgan Guaranty Trust Company of New York, as Collateral Agent for the Secured Parties.
10.8.0(16)	Pledge Agreement dated as of February 15, 2002, by UCAR SA in favor of GrafTech Finance Inc.
10.9.0(20)	GrafTech International Ltd. Management Stock Incentive Plan (Original Version) as amended and restated through July 31, 2003.
10.10.0(1) (9)(20)	Forms of Non-Qualified Stock Option Agreement.
10.11.0(20)	GrafTech International Ltd. Management Stock Incentive Plan (Senior Version) as amended and restated through July 31, 2003.

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
10.12.0(19) (20)	Forms of Restricted Stock Agreement.
10.13.0(20)	GrafTech International Ltd. Management Stock Incentive Plan (Mid-Management Version) as amended and restated through July 31, 2003.
10.14.0(20)	GrafTech International Ltd. 1995 Equity Incentive Plan as amended and restated through July 31, 2003.
10.15.0(20)	GrafTech International Ltd. 1996 Mid-Management Equity Incentive Plan as amended and restated through July 31, 2003.
10.16.0*	GrafTech International Ltd. Compensation Deferral Program effective March 31, 2003.
10.17.0(11)	GrafTech International Ltd. Management Incentive Plan amended and restated as of January 1, 1999.
10.18.0(9)	GrafTech International Ltd. Executive Employee Stock Purchase Program (Senior Management Version).
10.18.1(19)	GrafTech International Ltd. Executive Employee Stock Purchase Program (Mid-Management Version).
10.19.0(9)	GrafTech International Ltd. Executive Employee Loan Program.
10.20.0(14)	Forms of Severance Compensation Agreement for senior management (U.S. Version and International Version).
10.21.0*	UCAR Carbon Company Inc. Equalization Benefit Plan amended and restated as of March 31, 2003.
10.22.0*	UCAR Carbon Company Inc. Supplemental Retirement Income Plan amended and restated as of March 31, 2003.
10.23.0*	UCAR Carbon Company Inc. Enhanced Retirement Income Plan amended and restated as of March 31, 2003.
10.24.0*	UCAR Carbon Company Inc. Benefits Protection Trust amended and restated as of August 1, 2003.
10.25.0(8)	Employment Agreement dated as of June 22, 1998 between GrafTech International Ltd. and Gilbert E. Playford.
10.25.1(14)	Restricted Stock Agreement dated as of January 1, 2000 between GrafTech International Ltd. and Gilbert E. Playford.
10.25.2(15)	Amendment to such Employment Agreement and Restricted Stock Agreement dated as of August 25, 2001.
10.25.3(18)	Letter amending such Employment Agreement and Restricted Stock Agreement dated as of July 22, 2002.
10.26.0(7)	Plea Agreement between the United States of America and GrafTech International Ltd. executed April 7, 1998.
10.27.0(13)	Outsourcing Services Agreement, dated as of March 30, 2001, effective April 2001, between CGI Information Systems and Management Consultants, Inc. and GrafTech International Ltd. (Confidential treatment requested as to certain portions.)

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
10.28.0(13)	Joint Development and Collaboration Agreement, effective June 5, 2001, among UCAR Carbon Company Inc., Advanced Energy Technology Inc., and Ballard Power Systems Inc. (Confidential treatment requested as to certain portions.)
10.29.0(13)	Master Supply Agreement, effective June 5, 2001 between UCAR Carbon Company Inc. and Ballard Power Systems Inc. (Confidential treatment requested as to certain portions.)
10.30.0(13)	Agreement, effective as of January 1, 2001, between ConocoPhillips Limited and UCAR S.A. (Confidential treatment requested as to certain portions.)
10.31.0(13)	Agreement, effective as of January 1, 2001, between Cononco Inc. and UCAR Carbon Company Inc. and UCAR S.A. (Confidential treatment requested as to certain portions.)
21.1.0*	List of subsidiaries of GrafTech International Ltd.
23.1.0*	Consent of Deloitte & Touche LLP.
24.1.0*	Powers of Attorney (included on signature pages).
31.1*	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, by Craig S. Shular, Chief Executive Officer and President.
31.2*	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, by Corrado F. De Gasperis, Vice President, Chief Financial Officer and Chief Information Officer.
32.1*	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Craig S. Shular, Chief Executive Officer and President.
32.2*	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Corrado F. De Gasperis, Vice President, Chief Financial Officer and Chief Information Officer.

\* Filed herewith.

- (1) Incorporated by reference to the Registration Statement of GrafTech International Ltd. and GrafTech Global Enterprises Inc. on Form S-1 (Registration No. 33-84850).
- (2) Incorporated by reference to the Annual Report of the registrant on Form 10-K for the year ended December 31, 1995 (File No. 1-13888).
- (3) Incorporated by reference to the Registration Statement of the registrant on Form S-1 (Registration No. 33-94698).
- (4) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended March 31, 1996 (File No. 1-13888).
- (5) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended June 30, 1996 (File No. 1-13888).
- (6) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended September 30, 1997 (File No. 1-13888).
- (7) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended March 31, 1998 (File No. 1-13888).
- (8) Incorporated by reference to the Annual Report of the registrant on Form 10-K for the year ended December 31, 1997 (File No. 1-13888).

- (9) Incorporated by reference to the Annual Report of the registrant on Form 10-K for the year ended December 31, 1998 (File No. 1-13888).
- (10) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended September 30, 1999 (File No. 1-13888).
- (11) Incorporated by reference to the Annual Report of the registrant on Form 10-K for the year ended December 31, 1999 (File No. 1-13888).
- (12) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended September 30, 2000 (File No. 1-13888).
- (13) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended June 30, 2001 (File No. 1-13888).
- (14) Incorporated by reference to the Annual Report of the registrant on Form 10-K for the year ended December 31, 2000 (File No. 1-13888).
- (15) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended September 30, 2001 (File No. 1-13888).
- (16) Incorporated by reference to the Annual Report of the registrant on Form 10-K for the year ended December 31, 2001 (File No. 1-3888).
- (17) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended March 31, 2002 (File No. 1-13888).
- (18) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended June 30, 2002 (File No. 1-13888).
- (19) Incorporated by reference to the Annual Report of the registrant on Form 10-K for the year ended December 31, 2002 (File No. 1-13888).
- (20) Incorporated by reference to the Registration Statement of the registrant on Form S-3 (Registration No. 333-108039).
- (21) Incorporated by reference to the Quarterly Report of the registrant on Form 10-Q for the quarter ended June 30, 2003 (File No. 1-13888).



## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GRAFTECH INTERNATIONAL LTD.

March 15, 2004

By: /s/ Corrado F. De Gasperis  
Corrado F. De Gasperis  
Title: *Vice President, Chief Financial Officer  
and Chief Information Officer*

KNOW ALL MEN BY THESE PRESENTS, that each individual whose signature appears below hereby constitutes and appoints Craig S. Shular, Corrado F. De Gasperis and Karen G. Narwold, and each of them individually, his or her true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments to this Report together with all schedules and exhibits thereto, (ii) act on, sign and file with the Securities and Exchange Commission any and all exhibits to this Report and any and all exhibits and schedules thereto, (iii) act on, sign and file any and all such certificates, notices, communications, reports, instruments, agreements and other documents as may be necessary or appropriate in connection therewith and (iv) take any and all such actions which may be necessary or appropriate in connection therewith, granting unto such agents, proxies and attorneys-in-fact, and each of them individually, full power and authority to do and perform each and every act and thing necessary or appropriate to be done, as fully for all intents and purposes as he or she might or could do in person, and hereby approving, ratifying and confirming all that such agents, proxies and attorneys-in-fact, any of them or any of his, her or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Craig S. Shular</u> Craig S. Shular	Chief Executive Officer and President and Director (Principal Executive Officer)	March 15, 2004
<u>/s/ Corrado F. De Gasperis</u> Corrado F. De Gasperis	Vice President, Chief Financial Officer and Chief Information Officer (Principal Accounting Officer)	March 15, 2004

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Gilbert E. Playford</u> Gilbert E. Playford	Director	March 15, 2004
<u>/s/ R. Eugene Cartledge</u> R. Eugene Cartledge	Director	March 15, 2004
<u>/s/ Mary B. Cranston</u> Mary B. Cranston	Director	March 15, 2004
<u>/s/ John R. Hall</u> John R. Hall	Director	March 15, 2004
<u>/s/ Harold E. Layman</u> Harold E. Layman	Director	March 15, 2004
<u>/s/ Ferrell P. McClean</u> Ferrell P. McClean	Director	March 15, 2004
<u>/s/ Michael C. Nahl</u> Michael C. Nahl	Director	March 15, 2004

## EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description of Exhibit</u>
4.3.0*	Indenture dated as of January 22, 2004 among GrafTech International Ltd., GrafTech Finance Inc., GrafTech Global Enterprises Inc., UCAR Carbon Company Inc., UCAR International Trading Inc. and UCAR Carbon Technology LLC and U.S. Bank National Association.
4.5.0	Resale Registration Rights Agreement dated January 22, 2004 among GrafTech International Ltd., the guarantors listed therein, and J.P. Morgan Securities Inc.
10.1.7	Seventh Amendment to such Credit Agreement dated as of September 19, 2003.
10.1.8	Eighth Amendment to such Credit Agreement dated as of January 12, 2004.
10.16.0	GrafTech International Ltd. Compensation Deferral Program effective March 31, 2003.
10.21.0	UCAR Carbon Company Inc. Equalization Benefit Plan amended and restated as of March 31, 2003.
10.22.0	UCAR Carbon Company Inc. Supplemental Retirement Income Plan amended and restated as of March 31, 2003.
10.23.0	UCAR Carbon Company Inc. Enhanced Retirement Income Plan amended and restated as of March 31, 2003.
10.24.0	UCAR Carbon Company Inc. Benefits Protection Trust amended and restated as of August 1, 2003.
21.1.0	List of subsidiaries of GrafTech International Ltd.
23.1.0	Consent of Deloitte & Touche LLP.
24.1.0	Powers of Attorney (included on signature pages).
31.1	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, by Craig S. Shular, Chief Executive Officer and President.
31.2	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, by Corrado F. De Gasperis, Vice President, Chief Financial Officer and Chief Information Officer.
32.1	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Craig S. Shular, Chief Executive Officer and President.
32.2	Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Corrado F. De Gasperis, Vice President, Chief Financial Officer and Chief Information Officer.





**graphite electrodes**



**cathodes**



**natural graphite**



**carbon electrodes**

**Tech**

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